Geoffrey Burnstock

List of Publications by Citations

824 papers	68,718 citations	122 h-index	225 g-index
874 ext. papers	72,590 ext. citations	6.4 avg, IF	8.51 L-index

#	Paper	IF	Citations
824	Receptors for purines and pyrimidines. *Pharmacological Reviews*, **1998**, 50, 413-92	22.5	2897
823	Purinergic nerves. *Pharmacological Reviews*, **1972**, 24, 509-81	22.5	1557
822	Physiology and pathophysiology of purinergic neurotransmission. *Physiological Reviews*, **2007**, 87, 659-797	47.9	1215
821	Nomenclature and classification of purinoceptors. *Pharmacological Reviews*, **1994**, 46, 143-56	22.5	1168
820	Is there a basis for distinguishing two types of P2-purinoceptor?. *General Pharmacology*, **1985**, 16, 433-40		1162
819	International Union of Pharmacology LVIII: update on the P2Y G protein-coupled nucleotide receptors: from molecular mechanisms and pathophysiology to therapy. *Pharmacological Reviews*, **2006**, 58, 281-341	22.5	996
818	Purinoceptors: are there families of P2X and P2Y purinoceptors? **1994**, 64, 445-75		919
817	A P2X purinoceptor expressed by a subset of sensory neurons. *Nature*, **1995**, 377, 428-31	50.4	897
816	Urinary bladder hyporeflexia and reduced pain-related behaviour in P2X3-deficient mice. *Nature*, **2000**, 407, 1011-5	50.4	843
815	Purine and pyrimidine receptors. *Cellular and Molecular Life Sciences*, **2007**, 64, 1471-83	10.3	708
814	Purinergic signalling in the nervous system: an overview. *Trends in Neurosciences*, **2009**, 32, 19-29	13.3	630
813	Roles of P2-purinoceptors in the cardiovascular system. *Circulation*, **1991**, 84, 1-14	16.7	629
812	Purinergic signalling in neuron-glia interactions. *Nature Reviews Neuroscience*, **2006**, 7, 423-36	13.5	627
811	Evidence that adenosine triphosphate or a related nucleotide is the transmitter substance released by non-adrenergic inhibitory nerves in the gut. *British Journal of Pharmacology*, **1970**, 40, 668-88	8.6	596
810	Cellular distribution and functions of P2 receptor subtypes in different systems. *International Review of Cytology*, **2004**, 240, 31-304		574
809	Do some nerve cells release more than one transmitter?. *Neuroscience*, **1976**, 1, 239-48	3.9	559
808	The past, present and future of purine nucleotides as signalling molecules. *Neuropharmacology*, **1997**, 36, 1127-39	5.5	502

807	Pathophysiology and therapeutic potential of purinergic signaling. *Pharmacological Reviews*, **2006**, 58, 58-86	22.5	499
806	International union of pharmacology. XXIV. Current status of the nomenclature and properties of P2X receptors and their subunits. *Pharmacological Reviews*, **2001**, 53, 107-18	22.5	482
805	Purinergic signalling and disorders of the central nervous system. *Nature Reviews Drug Discovery*, **2008**, 7, 575-90	64.1	447
804	Cloning and functional expression of a brain G-protein-coupled ATP receptor. *FEBS Letters*, **1993**, 324, 219-25	3.8	426
803	The expression of P2X3 purinoreceptors in sensory neurons: effects of axotomy and glial-derived neurotrophic factor. *Molecular and Cellular Neurosciences*, **1998**, 12, 256-68	4.8	411
802	Purinergic signalling: ATP release. *Neurochemical Research*, **2001**, 26, 959-69	4.6	400
801	P2X3 knock-out mice reveal a major sensory role for urothelially released ATP. *Journal of Neuroscience*, **2001**, 21, 5670-7	6.6	393
800	Trophic actions of extracellular nucleotides and nucleosides on glial and neuronal cells. *Trends in Neurosciences*, **1996**, 19, 13-8	13.3	392
799	THE CONCISE GUIDE TO PHARMACOLOGY 2019/20: G protein-coupled receptors. *British Journal of Pharmacology*, **2019**, 176 Suppl 1, S21-S141	8.6	391
798	Historical review: ATP as a neurotransmitter. *Trends in Pharmacological Sciences*, **2006**, 27, 166-76	13.2	386
797	Purine-mediated signalling in pain and visceral perception. *Trends in Pharmacological Sciences*, **2001** , 22, 182-8	13.2	368
796	Overview. Purinergic mechanisms. *Annals of the New York Academy of Sciences*, **1990**, 603, 1-17; discussion 18	6.5	367
795	Characterization of the UDP-glucose receptor (re-named here the P2Y14 receptor) adds diversity to the P2Y receptor family. *Trends in Pharmacological Sciences*, **2003**, 24, 52-5	13.2	351
794	Review lecture. Neurotransmitters and trophic factors in the autonomic nervous system. *Journal of Physiology*, **1981**, 313, 1-35	3.9	346
793	Purinergic signalling: pathophysiological roles. *The Japanese Journal of Pharmacology*, **1998**, 78, 113-45		345
792	Purinergic signaling and vascular cell proliferation and death. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2002**, 22, 364-73	9.4	339
791	Atropine resistant excitation of the urinary bladder: the possibility of transmission via nerves releasing a purine nucleotide. *British Journal of Pharmacology*, **1972**, 44, 451-61	8.6	338
790	Apamin blocks certain neurotransmitter-induced increases in potassium permeability. *Nature*, **1979**, 282, 415-7	50.4	335

789	P2X receptors in peripheral neurons. *Progress in Neurobiology*, **2001**, 65, 107-34	10.9	326
788	Purinergic receptors: their role in nociception and primary afferent neurotransmission. *Current Opinion in Neurobiology*, **1996**, 6, 526-32	7.6	320
787	A dual function for adenosine 5Ptriphosphate in the regulation of vascular tone. Excitatory cotransmitter with noradrenaline from perivascular nerves and locally released inhibitory intravascular agent. *Circulation Research*, **1986**, 58, 319-30	15.7	317
786	P2X receptors in sensory neurones. *British Journal of Anaesthesia*, **2000**, 84, 476-88	5.4	314
785	Purinergic signalling: from normal behaviour to pathological brain function. *Progress in Neurobiology*, **2011**, 95, 229-74	10.9	308
784	The use of the slowly degradable analog, alpha, beta-methylene ATP, to produce desensitisation of the P2-purinoceptor: effect on non-adrenergic, non-cholinergic responses of the guinea-pig urinary bladder. *European Journal of Pharmacology*, **1982**, 86, 291-4	5.3	297
783	Release of vasoactive substances from endothelial cells by shear stress and purinergic mechanosensory transduction. *Journal of Anatomy*, **1999**, 194 (Pt 3), 335-42	2.9	292
782	P2X2 knockout mice and P2X2/P2X3 double knockout mice reveal a role for the P2X2 receptor subunit in mediating multiple sensory effects of ATP. *Journal of Physiology*, **2005**, 567, 621-39	3.9	290
781	Suramin antagonizes responses to P2-purinoceptor agonists and purinergic nerve stimulation in the guinea-pig urinary bladder and taenia coli. *British Journal of Pharmacology*, **1990**, 99, 617-21	8.6	288
780	Purinergic signalling. *British Journal of Pharmacology*, **2006**, 147 Suppl 1, S172-81	8.6	281
779	P2 receptors in cardiovascular regulation and disease. *Purinergic Signalling*, **2008**, 4, 1-20	3.8	279
778	Purinergic innervation of the guinea-pig urinary bladder. *British Journal of Pharmacology*, **1978**, 63, 125-38	8.6	276
777	ATP as a co-transmitter in rat tail artery. *European Journal of Pharmacology*, **1984**, 106, 149-52	5.3	270
776	Inhibition of excitatory junction potentials in guinea-pig vas deferens by alpha, beta-methylene-ATP: further evidence for ATP and noradrenaline as cotransmitters. *European Journal of Pharmacology*, **1984**, 100, 85-90	5.3	269
775	Towards a revised nomenclature for P1 and P2 receptors. *Trends in Pharmacological Sciences*, **1997**, 18, 79-82	13.2	265
774	The changing face of autonomic neurotransmission. *Acta Physiologica Scandinavica*, **1986**, 126, 67-91		253
773	The inhibitory innervation of the taenia of the guinea-pig caecum. *Journal of Physiology*, **1966**, 182, 504-26	3.9	247
772	Evidence that ATP acts as a co-transmitter with noradrenaline in sympathetic nerves supplying the guinea-pig vas deferens. *European Journal of Pharmacology*, **1983**, 92, 161-3	5.3	245

771	GABA may be a neurotransmitter in the vertebrate peripheral nervous system. *Nature*, **1979**, 281, 71-4	50.4	245
770	The transmission of excitation from autonomic nerve to smooth muscle. *Journal of Physiology*, **1961**, 155, 115-33	3.9	244
769	Pharmacology of P2X channels. *Pflugers Archiv European Journal of Physiology*, **2006**, 452, 513-37	4.6	239
768	Evolution of the autonomic innervation of visceral and cardiovascular systems in vertebrates. *Pharmacological Reviews*, **1969**, 21, 247-324	22.5	234
767	Evidence that release of adenosine triphosphate from endothelial cells during increased shear stress is vesicular. *Journal of Cardiovascular Pharmacology*, **2001**, 38, 900-8	3.1	227
766	A P2X purinoceptor cDNA conferring a novel pharmacological profile. *FEBS Letters*, **1995**, 375, 129-33	3.8	226
765	G protein-coupled receptors for ATP and other nucleotides: a new receptor family. *Trends in Pharmacological Sciences*, **1994**, 15, 67-70	13.2	225
764	P2-purinoceptors of two subtypes in the rabbit mesenteric artery: reactive blue 2 selectively inhibits responses mediated via the P2y-but not the P2x-purinoceptor. *British Journal of Pharmacology*, **1987**, 90, 383-91	8.6	222
763	CORRELATION OF FINE STRUCTURE AND PHYSIOLOGY OF THE INNERVATION OF SMOOTH MUSCLE IN THE GUINEA PIG VAS DEFERENS. *Journal of Cell Biology*, **1963**, 19, 529-50	7.3	220
762	Purinergic Signaling in the Cardiovascular System. *Circulation Research*, **2017**, 120, 207-228	15.7	219
761	Purinergic signaling and blood vessels in health and disease. *Pharmacological Reviews*, **2014**, 66, 102-92	22.5	217
760	A unifying purinergic hypothesis for the initiation of pain. *Lancet, The*, **1996**, 347, 1604-5	40	209
759	Evolutionary origins of the purinergic signalling system. *Acta Physiologica*, **2009**, 195, 415-47	5.6	207
758	Increased flow-induced ATP release from isolated vascular endothelial cells but not smooth muscle cells. *British Journal of Pharmacology*, **1991**, 103, 1203-5	8.6	206
757	Introduction: P2 receptors. *Current Topics in Medicinal Chemistry*, **2004**, 4, 793-803	3	206
756	P2 receptors and cancer. *Trends in Pharmacological Sciences*, **2006**, 27, 211-7	13.2	203
755	Purinergic Signalling: Therapeutic Developments. *Frontiers in Pharmacology*, **2017**, 8, 661	5.6	202
754	Localization of ATP-gated P2X receptor immunoreactivity in rat sensory and sympathetic ganglia. *Neuroscience Letters*, **1998**, 256, 105-8	3.3	202

753	Pivotal role of nucleotide P2X2 receptor subunit of the ATP-gated ion channel mediating ventilatory responses to hypoxia. *Journal of Neuroscience*, **2003**, 23, 11315-21	6.6	199
752	Purinergic signalling and cancer. *Purinergic Signalling*, **2013**, 9, 491-540	3.8	198
751	Cotransmission. *Current Opinion in Pharmacology*, **2004**, 4, 47-52	5.1	197
750	The effects of purified botulinum neurotoxin type A on cholinergic, adrenergic and non-adrenergic, atropine-resistant autonomic neuromuscular transmission. *Neuroscience*, **1982**, 7, 997-1006	3.9	195
749	Purinergic P2 receptors as targets for novel analgesics **2006**, 110, 433-54		189
748	Ultrastructural localization of choline acetyltransferase in vascular endothelial cells in rat brain. *Nature*, **1985**, 316, 724-5	50.4	189
747	Purinoceptors on neuroglia. *Molecular Neurobiology*, **2009**, 39, 190-208	6.2	187
746	P2X7 receptors: channels, pores and more. *CNS and Neurological Disorders - Drug Targets*, **2012**, 11, 705-21	2.6	183
745	Purinergic signalling and immune cells. *Purinergic Signalling*, **2014**, 10, 529-64	3.8	182
744	Rapid release of endothelin and ATP from isolated aortic endothelial cells exposed to increased flow. *Biochemical and Biophysical Research Communications*, **1990**, 170, 649-56	3.4	182
743	[3H]adenosine triphosphate: release during stimulation of enteric nerves. *Science*, **1971**, 173, 336-8	33.3	178
742	DISTRIBUTION OF P2X RECEPTORS IN THE URINARY BLADDER AND THE URETER OF THE RAT. *Journal of Urology*, **2000**, 163, 2002-2007	2.5	177
741	Noradrenaline and ATP as cotransmitters in sympathetic nerves. *Neurochemistry International*, **1990** , 17, 357-68	4.4	176
740	Purinergic receptors. *Journal of Theoretical Biology*, **1976**, 62, 491-503	2.3	175
739	The altrastructure of Auerbach's plexus in the guinea-pig. I. Neuronal elements. *Journal of Neurocytology*, **1976**, 5, 171-94		173
738	Direct evidence for ATP release from non-adrenergic, non-cholinergic ("purinergic") nerves in the guinea-pig taenia coli and bladder. *European Journal of Pharmacology*, **1978**, 49, 145-9	5.3	172
737	P2 purinergic receptors: modulation of cell function and therapeutic potential. *Journal of Pharmacology and Experimental Therapeutics*, **2000**, 295, 862-9	4.7	170
736	The contributions of noradrenaline and ATP to the responses of the rabbit central ear artery to sympathetic nerve stimulation depend on the parameters of stimulation. *European Journal of Pharmacology*, **1986**, 122, 291-300	5.3	167

735	Activation and sensitisation of low and high threshold afferent fibres mediated by P2X receptors in the mouse urinary bladder. *Journal of Physiology*, **2002**, 541, 591-600	3.9	166
734	A method for studying the effects of ions and drugs on the resting and action potentials in smooth muscle with external electrodes. *Journal of Physiology*, **1958**, 140, 156-67	3.9	162
733	Molecular cloning and characterization of rat P2Y4 nucleotide receptor. *British Journal of Pharmacology*, **1998**, 124, 428-30	8.6	161
732	The journey to establish purinergic signalling in the gut. *Neurogastroenterology and Motility*, **2008**, 20 Suppl 1, 8-19	4	160
731	P2X7 receptors in Müller glial cells from the human retina. *Journal of Neuroscience*, **2000**, 20, 5965-72	6.6	160
730	P2X RECEPTORS AND THEIR ROLE IN FEMALE IDIOPATHIC DETRUSOR INSTABILITY. *Journal of Urology*, **2002**, 167, 157-164	2.5	159
729	Purinergic signalling: Its unpopular beginning, its acceptance and its exciting future. *BioEssays*, **2012**, 34, 218-25	4.1	157
728	Purinergic receptors and pain. *Current Pharmaceutical Design*, **2009**, 15, 1717-35	3.3	156
727	Long-term (trophic) purinergic signalling: purinoceptors control cell proliferation, differentiation and death. *Cell Death and Disease*, **2010**, 1, e9	9.8	155
726	Increased release of ATP from endothelial cells during acute inflammation. *Inflammation Research*, **1998**, 47, 351-4	7.2	148
725	Pathophysiology of astroglial purinergic signalling. *Purinergic Signalling*, **2012**, 8, 629-57	3.8	147
724	Localization of ATP-gated P2X2 and P2X3 receptor immunoreactive nerves in rat taste buds. *NeuroReport*, **1999**, 10, 1107-11	1.7	147
723	Purinergic signalling: from discovery to current developments. *Experimental Physiology*, **2014**, 99, 16-34	2.4	146
722	Adenosine and ATP receptors in the brain. *Current Topics in Medicinal Chemistry*, **2011**, 11, 973-1011	3	146
721	ATP is released from guinea pig ureter epithelium on distension. *American Journal of Physiology - Renal Physiology*, **2002**, 282, F281-8	4.3	140
720	INHIBITION OF THE SMOOTH MUSCLE ON THE TAENIA COLI. *Nature*, **1963**, 200, 581-2	50.4	140
719	Alterations in P2X and P2Y purinergic receptor expression in urinary bladder from normal cats and cats with interstitial cystitis. *American Journal of Physiology - Renal Physiology*, **2004**, 287, F1084-91	4.3	139
718	Ultrastructural localisation of substance P and choline acetyltransferase in endothelial cells of rat coronary artery and release of substance P and acetylcholine during hypoxia. *Experientia*, **1989**, 45, 121-5		139

717	Microglia: proliferation and activation driven by the P2X7 receptor. *International Journal of Biochemistry and Cell Biology*, **2010**, 42, 1753-6	5.6	138
716	Endothelial cells cultured from human umbilical vein release ATP, substance P and acetylcholine in response to increased flow. *Proceedings of the Royal Society B: Biological Sciences*, **1990**, 241, 245-8	4.4	136
715	The potential of P2X7 receptors as a therapeutic target, including inflammation and tumour progression. *Purinergic Signalling*, **2018**, 14, 1-18	3.8	135
714	Coexpression of rat P2X2 and P2X6 subunits in Xenopus oocytes. *Journal of Neuroscience*, **2000**, 20, 487	6.6	134
713	Localisation of P2Y1 and P2Y4 receptors in dorsal root, nodose and trigeminal ganglia of the rat. *Histochemistry and Cell Biology*, **2003**, 120, 415-26	2.4	131
712	Effect of shear stress on the release of soluble ecto-enzymes ATPase and 5Pnucleotidase along with endogenous ATP from vascular endothelial cells. *British Journal of Pharmacology*, **2000**, 129, 921-6	8.6	130
711	Numbering of cloned P2 purinoceptors. *Drug Development Research*, **1996**, 38, 67-71	5.1	130
710	Modulation of astroglial cell proliferation by analogues of adenosine and ATP in primary cultures of rat striatum. *Neuroscience*, **1994**, 59, 67-76	3.9	130
709	P2 receptor modulation and cytotoxic function in cultured CNS neurons. *Neuropharmacology*, **2002**, 42, 489-501	5.5	129
708	Evidence that prostaglandin is responsible for the Prebound contractionPfollowing stimulation of non-adrenergic, non-cholinergic (Ppurinergic) inhibitory nerves. *European Journal of Pharmacology*, **1975**, 31, 360-2	5.3	129
707	P2X receptors in health and disease. *Advances in Pharmacology*, **2011**, 61, 333-72	5.7	128
706	Metabotropic receptors for ATP and UTP: exploring the correspondence between native and recombinant nucleotide receptors. *Trends in Pharmacological Sciences*, **1998**, 19, 506-14	13.2	128
705	P2X ion channel receptors and inflammation. *Purinergic Signalling*, **2016**, 12, 59-67	3.8	126
704	Effects of extracellular pH on agonism and antagonism at a recombinant P2X2 receptor. *British Journal of Pharmacology*, **1997**, 121, 1445-53	8.6	122
703	Expression of P2 receptors in bone and cultured bone cells. *Bone*, **2000**, 27, 503-10	4.7	122
702	Full sensitivity of P2X2 purinoceptor to ATP revealed by changing extracellular pH. *British Journal of Pharmacology*, **1996**, 117, 1371-3	8.6	122
701	An introduction to the roles of purinergic signalling in neurodegeneration, neuroprotection and neuroregeneration. *Neuropharmacology*, **2016**, 104, 4-17	5.5	121
700	Comparative studies of purinergic nerves. *The Journal of Experimental Zoology*, **1975**, 194, 103-33		121

699	Physiological and pathological roles of purines: An update. *Drug Development Research*, **1993**, 28, 195-206	5.1	119
698	PPADS selectively antagonizes P2X-purinoceptor-mediated responses in the rabbit urinary bladder. *British Journal of Pharmacology*, **1993**, 110, 1491-5	8.6	118
697	8-phenyltheophylline: a potent P1-purinoceptor antagonist. *European Journal of Pharmacology*, **1981**, 75, 61-4	5.3	118
696	INNERVATION OF THE GUINEA-PIG TAENIA COLI: ARE THERE INTRINSIC INHIBITORY NERVES WHICH ARE DISTINCT FROM SYMPATHETIC NERVES?. *International Journal of Neuropharmacology*, **1964**, 3, 163-6		118
695	Purinergic signaling in the airways. *Pharmacological Reviews*, **2012**, 64, 834-68	22.5	117
694	The pattern of distribution of selected ATP-sensitive P2 receptor subtypes in normal rat kidney: an immunohistological study. *Cells Tissues Organs*, **2003**, 175, 105-17	2.1	117
693	Potential therapeutic targets in the rapidly expanding field of purinergic signalling. *Clinical Medicine*, **2002**, 2, 45-53	1.9	117
692	Induction of proliferation and apoptotic cell death via P2Y and P2X receptors, respectively, in rat glomerular mesangial cells. *Kidney International*, **2000**, 57, 949-58	9.9	117
691	Ultrastructural localization of P2X3 receptors in rat sensory neurons. *NeuroReport*, **1998**, 9, 2545-50	1.7	117
690	New insights into the local regulation of blood flow by perivascular nerves and endothelium. *Journal of Plastic, Reconstructive and Aesthetic Surgery*, **1994**, 47, 527-43		117
689	Spontaneous potential at sympathetic nerve endings in smooth muscle. *Journal of Physiology*, **1962**, 160, 446-60	3.9	117
688	A2-purinoceptor-mediated relaxation in the guinea-pig coronary vasculature: a role for nitric oxide. *British Journal of Pharmacology*, **1993**, 109, 424-9	8.6	116
687	Purinergic signalling in the urinary tract in health and disease. *Purinergic Signalling*, **2014**, 10, 103-55	3.8	115
686	Purinergic Mechanisms and Pain. *Advances in Pharmacology*, **2016**, 75, 91-137	5.7	113
685	Regulation of bone resorption and formation by purines and pyrimidines. *Trends in Pharmacological Sciences*, **2003**, 24, 290-7	13.2	111
684	A pharmacological study of the rabbit saphenous artery in vitro: a vessel with a large purinergic contractile response to sympathetic nerve stimulation. *British Journal of Pharmacology*, **1987**, 90, 111-20	8.6	111
683	A comparison of the excitatory and inhibitory effects of non-adrenergic, non-cholinergic nerve stimulation and exogenously applied ATP on a variety of smooth muscle preparations from different vertebrate species. *British Journal of Pharmacology*, **1972**, 46, 234-42	8.6	111
682	ATP-stimulated release of ATP by human endothelial cells. *Journal of Cardiovascular Pharmacology*, **1996**, 27, 872-5	3.1	110

681	Purinergic signalling: past, present and future. *Brazilian Journal of Medical and Biological Research*, **2009**, 42, 3-8	2.8	108
680	ATP regulates the differentiation of mammalian skeletal muscle by activation of a P2X5 receptor on satellite cells. *Journal of Cell Biology*, **2002**, 158, 345-55	7.3	108
679	Nitric oxide synthase immunoreactivity and NADPH-diaphorase activity in a subpopulation of intrinsic neurones of the guinea-pig heart. *Neuroscience Letters*, **1992**, 143, 65-8	3.3	108
678	Neural nomenclature. *Nature*, **1971**, 229, 282-3	50.4	108
677	Purinoceptors: Ontogeny and phylogeny. *Drug Development Research*, **1996**, 39, 204-242	5.1	107
676	Sympathetic nerve-mediated release of ATP from the guinea-pig vas deferens is unaffected by reserpine. *European Journal of Pharmacology*, **1987**, 138, 207-14	5.3	107
675	Purinergic receptors are part of a functional signaling system for proliferation and differentiation of human epidermal keratinocytes. *Journal of Investigative Dermatology*, **2003**, 120, 1007-15	4.3	106
674	Pharmacological and biophysical properties of the human P2X5 receptor. *Molecular Pharmacology*, **2003**, 63, 1407-16	4.3	106
673	Evidence for the presence of P1-purinoceptors on cholinergic nerve terminals in the guinea-pig ileum. *European Journal of Pharmacology*, **1982**, 77, 1-9	5.3	106
672	The ultrastructure of Auerbach? plexus in the guinea-pig. II. Non-neuronal elements. *Journal of Neurocytology*, **1976**, 5, 195-206		106
671	Involvement of purinergic signaling in cardiovascular diseases. *Drug News and Perspectives*, **2003**, 16, 133-40		106
670	Evidence for two types of P2-purinoceptor in longitudinal muscle of the rabbit portal vein. *European Journal of Pharmacology*, **1985**, 111, 49-56	5.3	105
669	Modulation of the evoked release of noradrenaline in canine saphenous vein via presynaptic receptors for adenosine but not ATP. *European Journal of Pharmacology*, **1979**, 55, 401-5	5.3	105
668	Noradrenaline and ATP: cotransmitters and neuromodulators. *Journal of Physiology and Pharmacology*, **1995**, 46, 365-84	2.1	105
667	Purinergic signalling and bone remodelling. *Current Opinion in Pharmacology*, **2010**, 10, 322-30	5.1	104
666	Hypoxia stimulates vesicular ATP release from rat osteoblasts. *Journal of Cellular Physiology*, **2009**, 220, 155-62	7	104
665	Extracellular nucleotides block bone mineralization in vitro: evidence for dual inhibitory mechanisms involving both P2Y2 receptors and pyrophosphate. *Endocrinology*, **2007**, 148, 4208-16	4.8	104
664	Direct evidence for concomitant release of noradrenaline, adenosine 5?triphosphate and neuropeptide Y from sympathetic nerve supplying the guinea-pig vas deferens. *Journal of the Autonomic Nervous System*, **1988**, 22, 75-82		104

663	Purinergic cotransmission. *Experimental Physiology*, **2009**, 94, 20-4	2.4	103
662	ATP is a potent stimulator of the activation and formation of rodent osteoclasts. *Journal of Physiology*, **1998**, 511 (Pt 2), 495-500	3.9	103
661	Adrenergic Neurons **1975**,		101
660	Glomerular expression of the ATP-sensitive P2X receptor in diabetic and hypertensive rat models. *Kidney International*, **2004**, 66, 157-66	9.9	100
659	Expression of purinergic receptors in non-melanoma skin cancers and their functional roles in A431 cells. *Journal of Investigative Dermatology*, **2003**, 121, 315-27	4.3	100
658	Noradrenaline uptake by non-innervated smooth muscle. *British Journal of Pharmacology*, **1971**, 43, 180-8	8.6	100
657	Purinergic mechanosensory transduction and visceral pain. *Molecular Pain*, **2009**, 5, 69	3.4	98
656	Early expression of a novel nucleotide receptor in the neural plate of Xenopus embryos. *Journal of Biological Chemistry*, **1997**, 272, 12583-90	5.4	98
655	Osteoblast responses to nucleotides increase during differentiation. *Bone*, **2006**, 39, 300-9	4.7	98
654	Sympathetic purinergic transmission in small blood vessels. *Trends in Pharmacological Sciences*, **1988**, 9, 116-7	13.2	98
653	Effects of adenosine 5Ptriphosphate (ATP) and beta-gamma-methylene ATP on the rat urinary bladder. *British Journal of Pharmacology*, **1979**, 65, 97-102	8.6	98
652	Fine structure of smooth muscle cells grown in tissue culture. *Journal of Cell Biology*, **1971**, 49, 21-34	7.3	98
651	P2 receptors in the murine gastrointestinal tract. *Neuropharmacology*, **2002**, 43, 1313-23	5.5	97
650	Selective antagonism by PPADS at P2X-purinoceptors in rabbit isolated blood vessels. *British Journal of Pharmacology*, **1994**, 111, 923-9	8.6	97
649	Purinergic mechanisms contribute to mechanosensory transduction in the rat colorectum. *Gastroenterology*, **2003**, 125, 1398-409	13.3	96
648	The fifth Heymans memorial lecture-Ghent, February 17, 1990. Co-transmission. *Archives Internationales De Pharmacodynamie Et De Th□apie*, **1990**, 304, 7-33		96
647	P2X7 deficiency attenuates renal injury in experimental glomerulonephritis. *Journal of the American Society of Nephrology: JASN*, **2009**, 20, 1275-81	12.7	95
646	AF-353, a novel, potent and orally bioavailable P2X3/P2X2/3 receptor antagonist. *British Journal of Pharmacology*, **2010**, 160, 1387-98	8.6	94

645	Structure Activity Relationships for Derivatives of Adenosine-5PTriphosphate as Agonists at P(2) Purinoceptors: Heterogeneity Within P(2X) and P(2Y) Subtypes. *Drug Development Research*, **1994**, 31, 206-219	5.1	94
644	Purine and purinergic receptors. *Brain and Neuroscience Advances*, **2018**, 2, 2398212818817494	4	94
643	Coexpression of mRNAs for P2X1, P2X2 and P2X4 receptors in rat vascular smooth muscle: an in situ hybridization and RT-PCR study. *Journal of Vascular Research*, **1998**, 35, 179-85	1.9	93
642	Peptide-containing neurones connect the two ganglionated plexuses of the enteric nervous system. *Nature*, **1980**, 283, 391-3	50.4	93
641	Purinergic mechanisms and pain--an update. *European Journal of Pharmacology*, **2013**, 716, 24-40	5.3	92
640	Purinergic signaling in healthy and diseased skin. *Journal of Investigative Dermatology*, **2012**, 132, 526-46	4.3	92
639	P2X and P2Y purinergic receptors on human intestinal epithelial carcinoma cells: effects of extracellular nucleotides on apoptosis and cell proliferation. *American Journal of Physiology - Renal Physiology*, **2005**, 288, G1024-35	5.1	92
638	Intraepithelial vagal sensory nerve terminals in rat pulmonary neuroepithelial bodies express P2X(3) receptors. *American Journal of Respiratory Cell and Molecular Biology*, **2000**, 23, 52-61	5.7	92
637	Synergistic effect of acute hypoxia on flow-induced release of ATP from cultured endothelial cells. *Experientia*, **1995**, 51, 256-9		92
636	Ecto-enzymes and metabolism of extracellular ATP. *Drug Development Research*, **1994**, 32, 134-146	5.1	92
635	Effects of purines and pyrimidines on the rat mesenteric arterial bed. *Circulation Research*, **1991**, 69, 1583-90	15.7	92
634	Substance P is released from the endothelium of normal and capsaicin-treated rat hind-limb vasculature, in vivo, by increased flow. *Circulation Research*, **1990**, 66, 1178-83	15.7	92
633	Biology of purinergic signalling: its ancient evolutionary roots, its omnipresence and its multiple functional significance. *BioEssays*, **2014**, 36, 697-705	4.1	91
632	Purinergic signaling in embryonic and stem cell development. *Cellular and Molecular Life Sciences*, **2011**, 68, 1369-94	10.3	91
631	A histochemical and immunohistochemical study of the autonomic innervation of the lower urinary tract of the female pig. Is the pig a good model for the human bladder and urethra?. *Journal of Urology*, **1989**, 141, 414-22	2.5	91
630	P2 receptor web: complexity and fine-tuning **2006**, 112, 264-80		90
629	Purinergic component of mechanosensory transduction is increased in a rat model of colitis. *American Journal of Physiology - Renal Physiology*, **2004**, 287, G647-57	5.1	90
628	Purinergic Signalling: An Overview. *Novartis Foundation Symposium*,26-53		90

627	The birth and postnatal development of purinergic signalling. *Acta Physiologica*, **2010**, 199, 93-147	5.6	89
626	Different P2-purinergic receptor subtypes of endothelium and smooth muscle in canine blood vessels. *Journal of Pharmacology and Experimental Therapeutics*, **1987**, 241, 501-6	4.7	89
625	Electron-immunocytochemical localization of P2X1 receptors in the rat cerebellum. *Cell and Tissue Research*, **1998**, 294, 253-60	4.2	88
624	Actions mediated by P2-purinoceptor subtypes in the isolated perfused mesenteric bed of the rat. *British Journal of Pharmacology*, **1988**, 95, 637-45	8.6	88
623	Localisation of P2X5 and P2X7 receptors by immunohistochemistry in rat stratified squamous epithelia. *Cell and Tissue Research*, **1999**, 296, 599-605	4.2	87
622	Distribution of [3H]alpha,beta-methylene ATP binding sites in rat brain and spinal cord. *NeuroReport*, **1994**, 5, 1601-4	1.7	87
621	Isolated human bladder: evidence for an adenine dinucleotide acting on P2X-purinoceptors and for purinergic transmission. *European Journal of Pharmacology*, **1989**, 174, 115-8	5.3	87
620	Quinacrine staining of marginal cells in the stria vascularis of the guinea-pig cochlea: a possible source of extracellular ATP?. *Hearing Research*, **1995**, 90, 97-105	3.9	86
619	Cardiac purinergic signalling in health and disease. *Purinergic Signalling*, **2015**, 11, 1-46	3.8	85
618	Abundant and dynamic expression of G protein-coupled P2Y receptors in mammalian development. *Developmental Dynamics*, **2003**, 228, 254-66	2.9	85
617	Interaction between ATP and nerve growth factor signalling in the survival and neuritic outgrowth from PC12 cells. *Neuroscience*, **2001**, 108, 527-34	3.9	85
616	Distribution of P1- and P2-purinoceptors in the guinea-pig and frog heart. *British Journal of Pharmacology*, **1981**, 73, 879-85	8.6	85
615	Purinergic signalling in the musculoskeletal system. *Purinergic Signalling*, **2013**, 9, 541-72	3.8	84
614	Purinergic regulation of vascular tone and remodelling. *Autonomic and Autacoid Pharmacology*, **2009**, 29, 63-72		84
613	ATP and UTP at low concentrations strongly inhibit bone formation by osteoblasts: a novel role for the P2Y2 receptor in bone remodeling. *Journal of Cellular Biochemistry*, **2002**, 86, 413-9	4.7	84
612	Ultrastructural localisation of serotonin and substance P in vascular endothelial cells of rat femoral and mesenteric arteries. *Anatomy and Embryology*, **1988**, 178, 137-42		84
611	Autonomic neurotransmission: 60 years since sir Henry Dale. *Annual Review of Pharmacology and Toxicology*, **2009**, 49, 1-30	17.9	83
610	Perivascular noradrenergic and peptide-containing nerves show different patterns of changes during development and ageing in the guinea-pig. *Journal of the Autonomic Nervous System*, **1986**, 16, 109-26		83

609	Extracellular ADP is a powerful osteolytic agent: evidence for signaling through the P2Y(1) receptor on bone cells. *FASEB Journal*, **2001**, 15, 1139-48	0.9	82
608	Dual control of local blood flow by purines. *Annals of the New York Academy of Sciences*, **1990**, 603, 31-44; discussion 44-5	6.5	82
607	Spinal P2X(7) receptor mediates microglia activation-induced neuropathic pain in the sciatic nerve injury rat model. *Behavioural Brain Research*, **2012**, 226, 163-70	3.4	81
606	P2X receptors and their roles in astroglia in the central and peripheral nervous system. *Neuroscientist*, **2012**, 18, 422-38	7.6	81
605	Evidence for coexistence of ATP and nitric oxide in non-adrenergic, non-cholinergic (NANC) inhibitory neurones in the rat ileum, colon and anococcygeus muscle. *Cell and Tissue Research*, **1994**, 278, 197-200	4.2	81
604	ATP mediates coronary vasoconstriction via P2x-purinoceptors and coronary vasodilatation via P2y-purinoceptors in the isolated perfused rat heart. *European Journal of Pharmacology*, **1987**, 136, 49-54	5.3	81
603	Development and ageing of perivascular adrenergic nerves in the rabbit. A quantitative fluorescence histochemical study using image analysis. *Journal of the Autonomic Nervous System*, **1982**, 5, 317-36		81
602	Purinergic signalling and diabetes. *Purinergic Signalling*, **2013**, 9, 307-24	3.8	80
601	Pivotal role of phosphate chain length in vasoconstrictor versus vasodilator actions of adenine dinucleotides in rat mesenteric arteries. *Journal of Physiology*, **1995**, 483 (Pt 3), 703-13	3.9	80
600	A proposal for the role of ecto-enzymes and adenylates in traumatic shock. *Journal of Theoretical Biology*, **1980**, 87, 609-21	2.3	80
599	Autonomic neuromuscular junctions: current developments and future directions. *Journal of Anatomy*, **1986**, 146, 1-30	2.9	80
598	Neurochemical identification of enteric neurons expressing P2X(3) receptors in the guinea-pig ileum. *Histochemistry and Cell Biology*, **2002**, 118, 193-203	2.4	79
597	The action of adrenaline on excitability and membrane potential in the taenia coli of the guinea-pig and the effect of DNP on this action and on the action of acetylcholine. *Journal of Physiology*, **1958**, 143, 183-94	3.9	79
596	Characterization of the signalling pathways involved in ATP and basic fibroblast growth factor-induced astrogliosis. *British Journal of Pharmacology*, **1997**, 121, 1692-9	8.6	78
595	The therapeutic potential of purinergic signalling. *Biochemical Pharmacology*, **2018**, 151, 157-165	6	77
594	Purinergic signalling in the gastrointestinal tract and related organs in health and disease. *Purinergic Signalling*, **2014**, 10, 3-50	3.8	77
593	Zn2+ modulation of ATP-responses at recombinant P2X2 receptors and its dependence on extracellular pH. *British Journal of Pharmacology*, **1998**, 123, 1214-20	8.6	77
592	Expression of P2X purinoceptors during rat brain development and their inhibitory role on motor axon outgrowth in neural tube explant cultures. *Neuroscience*, **2005**, 133, 937-45	3.9	77

591	Structure-activity relationships of pyridoxal phosphate derivatives as potent and selective antagonists of P2X1 receptors. *Journal of Medicinal Chemistry*, **2001**, 44, 340-9	8.3	77
590	Sequential expression of three receptor subtypes for extracellular ATP in developing rat skeletal muscle. *Developmental Dynamics*, **2001**, 221, 331-41	2.9	76
589	Diinosine pentaphosphate (IP5I) is a potent antagonist at recombinant rat P2X1 receptors. *British Journal of Pharmacology*, **1999**, 128, 981-8	8.6	76
588	A novel non-adrenergic, non-cholinergic nerve-mediated relaxation of the pig bladder neck: an examination of possible neurotransmitter candidates. *European Journal of Pharmacology*, **1984**, 99, 287-93	5.3	76
587	Fine-structural Identification of Autonomic Nerves and their Relation to Smooth Muscle. *Progress in Brain Research*, **1971**, 389-404	2.9	76
586	Acupuncture: a novel hypothesis for the involvement of purinergic signalling. *Medical Hypotheses*, **2009**, 73, 470-2	3.8	75
585	Heteromultimeric P2X(1/2) receptors show a novel sensitivity to extracellular pH. *Journal of Pharmacology and Experimental Therapeutics*, **2002**, 300, 673-80	4.7	75
584	An increase in the expression of neuropeptidergic vasodilator, but not vasoconstrictor, cerebrovascular nerves in aging rats. *Brain Research*, **1988**, 460, 103-13	3.7	75
583	Axial distribution and characterization of basolateral P2Y receptors along the rat renal tubule. *Kidney International*, **2000**, 58, 1893-901	9.9	74
582	Autonomic neuroeffector junctions--reflex vasodilatation of the skin. *Journal of Investigative Dermatology*, **1977**, 69, 47-57	4.3	74
581	Introduction to purinergic signalling in the brain. *Advances in Experimental Medicine and Biology*, **2013**, 986, 1-12	3.6	73
580	Characterization of the Ca2+ responses evoked by ATP and other nucleotides in mammalian brain astrocytes. *British Journal of Pharmacology*, **1997**, 121, 1700-6	8.6	73
579	Lack of release of vasoactive intestinal polypeptide and calcitonin gene-related peptide during electrical stimulation of enteric nerves in streptozotocin-diabetic rats. *Gastroenterology*, **1987**, 93, 1034-40	13.3	73
578	Studies on the stereoselectivity of the P2-purinoceptor. *British Journal of Pharmacology*, **1983**, 79, 907-18	8.6	73
577	The interstitial cell and its place in the concept of the autonomic ground plexus. *Journal of Comparative Neurology*, **1966**, 126, 255-84	3.4	73
576	The regulation of osteoblast function and bone mineralisation by extracellular nucleotides: The role of p2x receptors. *Bone*, **2012**, 51, 389-400	4.7	72
575	Immunohistochemical evidence for ATP receptors in human dental pulp. *Journal of Dental Research*, **2001**, 80, 476-83	8.1	72
574	The effects of acetylcholine on membrane potential, spike frequency, conduction velocity and excitability in the taenia coli of the guinea-pig. *Journal of Physiology*, **1958**, 143, 165-82	3.9	72

573	An evolutionary history of P2X receptors. *Purinergic Signalling*, **2009**, 5, 269-72	3.8	70
572	Current status of purinergic signalling in the nervous system. *Progress in Brain Research*, **1999**, 120, 3-10	2.9	70
571	Inhibitory action of PPADS on relaxant responses to adenine nucleotides or electrical field stimulation in guinea-pig taenia coli and rat duodenum. *British Journal of Pharmacology*, **1995**, 115, 1509-17	8.6	70
570	Vasoconstrictor and vasodilator responses to various agonists in the rat perfused mesenteric arterial bed: selective inhibition by PPADS of contractions mediated via P2x-purinoceptors. *British Journal of Pharmacology*, **1994**, 113, 1015-21	8.6	70
569	Purine-mediated relaxation and constriction of isolated rabbit mesenteric artery are not endothelium-dependent. *European Journal of Pharmacology*, **1985**, 118, 221-9	5.3	70
568	Evidence against vasoactive intestinal polypeptide being the non-adrenergic, non-cholinergic inhibitory transmitter released from nerves supplying the smooth muscle of the guinea-pig taenia coli. *European Journal of Pharmacology*, **1980**, 67, 255-64	5.3	70
567	Purinergic signalling in the kidney in health and disease. *Purinergic Signalling*, **2014**, 10, 71-101	3.8	69
566	Expression of P2X receptors on rat microglial cells during early development. *Glia*, **2005**, 52, 119-26	9	69
565	Subunit specificity of polyclonal antisera to the carboxy terminal regions of P2X receptors, P2X1 through P2X7. *Drug Development Research*, **1999**, 47, 189-195	5.1	69
564	Vascular control by purines with emphasis on the coronary system. *European Heart Journal*, **1989**, 10 Suppl F, 15-21	9.5	69
563	Purinergic signalling: pathophysiology and therapeutic potential. *Keio Journal of Medicine*, **2013**, 62, 63-73	1.6	68
562	Purines and sensory nerves. *Handbook of Experimental Pharmacology*, **2009**, 333-92	3.2	68
561	Angiotensin neuromodulation of adrenergic and purinergic co-transmission in the guinea-pig vas deferens. *British Journal of Pharmacology*, **1989**, 97, 1157-64	8.6	68
560	Endothelium-dependent and endothelium-independent vasodilatation of the hepatic artery of the rabbit. *British Journal of Pharmacology*, **1991**, 103, 1206-12	8.6	68
559	P2X2 and P2X3 purinoceptors in the rat enteric nervous system. *Histochemistry and Cell Biology*, **2004**, 121, 169-79	2.4	67
558	Purinergic receptors are part of a signaling system for keratinocyte proliferation, differentiation, and apoptosis in human fetal epidermis. *Journal of Investigative Dermatology*, **2003**, 121, 1145-9	4.3	67
557	Raised endothelin 1 levels in patients with colorectal liver metastases. *British Journal of Surgery*, **1998**, 85, 502-6	5.3	67
556	Cyclo-oxygenase-2 mediates P2Y receptor-induced reactive astrogliosis. *British Journal of Pharmacology*, **1999**, 126, 563-7	8.6	67

555	P2X receptor immunoreactivity in the rat cochlea, vestibular ganglion and cochlear nucleus. *Hearing Research*, **1999**, 128, 190-6	3.9	67
554	Distribution and Roles of Purinoceptor Subtypes. *Nucleosides & Nucleotides*, **1991**, 10, 917-930		67
553	Intramural neurons of the guinea-pig urinary bladder: histochemical localization of putative neurotransmitters in cultures and newborn animals. *Journal of the Autonomic Nervous System*, **1986**, 15, 319-39		67
552	Distribution of P2X receptors in the urinary bladder and the ureter of the rat. *Journal of Urology*, **2000**, 163, 2002-7	2.5	67
551	Localization of ATP-gated P2X2 receptor immunoreactivity in the rat hypothalamus. *Brain Research*, **1998**, 813, 390-7	3.7	66
550	Bladder and cutaneous sensory neurons of the rat express different functional P2X receptors. *Neuroscience*, **2003**, 120, 667-75	3.9	66
549	Demonstration of "gap junctions" between smooth muscle cells. *Journal of Cell Biology*, **1970**, 44, 215-7	7.3	66
548	An electron microscopic study on the innervation of the trout heart. *Journal of Comparative Neurology*, **1968**, 132, 567-88	3.4	66
547	Cellular studies of sympathetic denervation produced by 6-hydroxydopamine in the vas deferens. *Journal of Pharmacology and Experimental Therapeutics*, **1970**, 174, 111-22	4.7	66
546	Localization of P2X1 purinoceptors by autoradiography and immunohistochemistry in rat kidneys. *American Journal of Physiology - Renal Physiology*, **1998**, 274, F799-804	4.3	65
545	Nitric oxide is the mediator of ATP-induced dilatation of the rabbit hepatic arterial vascular bed. *British Journal of Pharmacology*, **1991**, 103, 1602-6	8.6	65
544	Vasoactive intestinal polypeptide-like immunoreactive nerves in diabetic penis. A comparison between streptozotocin-treated rats and man. *Diabetes*, **1983**, 32, 1075-7	0.9	65
543	Purinergic system in psychiatric diseases. *Molecular Psychiatry*, **2018**, 23, 94-106	15.1	64
542	Evidence in support of the P1/P2 purinoceptor hypothesis in the guinea-pig taenia coli. *British Journal of Pharmacology*, **1981**, 73, 617-24	8.6	64
541	Introductory overview of purinergic signalling. *Frontiers in Bioscience - Elite*, **2011**, 3, 896-900	1.6	64
540	Increased expression of the pro-apoptotic ATP-sensitive P2X7 receptor in experimental and human glomerulonephritis. *Nephrology Dialysis Transplantation*, **2007**, 22, 386-95	4.3	63
539	Contribution of P1-(A2b subtype) and P2-purinoceptors to the control of vascular tone in the rat isolated mesenteric arterial bed. *British Journal of Pharmacology*, **1995**, 115, 648-52	8.6	63
538	Atropine-resistant excitatory junction potentials in rabbit bladder are blocked by alpha,beta-methylene ATP. *European Journal of Pharmacology*, **1985**, 114, 239-40	5.3	63

537	Adenosine triphosphate-evoked vascular changes in human skin: mechanism of action. *European Journal of Pharmacology*, **1981**, 76, 391-401	5.3	63
536	Pathophysiology of migraine: a new hypothesis. *Lancet, The*, **1981**, 1, 1397-9	40	63
535	Purinergic signalling in the liver in health and disease. *Purinergic Signalling*, **2014**, 10, 51-70	3.8	62
534	P2Y purinergic receptors regulate the growth of human melanomas. *Cancer Letters*, **2005**, 224, 81-91	9.9	62
533	The smooth muscle of rat bladder in the early stages of streptozotocin-induced diabetes. *British Journal of Urology*, **1984**, 56, 24-30		62
532	Comparative pharmacological studies of isolated spiral strips of large arteries from lower vertebrates. *Comparative Biochemistry and Physiology*, **1969**, 28, 307-19		62
531	Tissue distribution of P2X4 receptors studied with an ectodomain antibody. *Cell and Tissue Research*, **2003**, 313, 159-65	4.2	61
530	Changes in P2X receptor responses of sensory neurons from P2X3-deficient mice. *European Journal of Neuroscience*, **2001**, 14, 1784-92	3.5	61
529	Purinergic cotransmission. *Brain Research Bulletin*, **1999**, 50, 355-7	3.9	61
528	Stimulation of P1-purinoceptors by ATP depends partly on its conversion to AMP and adenosine and partly on direct action. *European Journal of Pharmacology*, **1984**, 97, 47-54	5.3	61
527	Physiopathological roles of P2X receptors in the central nervous system. *Current Medicinal Chemistry*, **2015**, 22, 819-44	4.3	61
526	Purinergic signalling--an overview. *Novartis Foundation Symposium*, **2006**, 276, 26-48; discussion 48-57, 275-81		61
525	Modulation of ATP-responses at recombinant rP2X4 receptors by extracellular pH and zinc. *British Journal of Pharmacology*, **1999**, 126, 762-8	8.6	60
524	Intrinsic neurones and associated cells of the guinea-pig heart in culture. *Brain Research*, **1986**, 364, 102-13	3.7	60
523	The structural conformation of the polyphosphate chain of the ATP molecule is critical for its promotion of prostaglandin biosynthesis. *European Journal of Pharmacology*, **1981**, 69, 81-6	5.3	60
522	Purinergic Signalling and Neurological Diseases: An Update. *CNS and Neurological Disorders - Drug Targets*, **2017**, 16, 257-265	2.6	60
521	Discovery of purinergic signalling, the initial resistance and current explosion of interest. *British Journal of Pharmacology*, **2012**, 167, 238-55	8.6	59
520	Molecular cloning, functional characterization and possible cooperativity between the murine P2X4 and P2X4a receptors. *Molecular Brain Research*, **1999**, 64, 246-54		59

519	Discrimination by PPADS between endothelial P2Y- and P2U-purinoceptors in the rat isolated mesenteric arterial bed. *British Journal of Pharmacology*, **1996**, 118, 428-34	8.6	59
518	Blockade by glibenclamide of the flow-evoked endothelial release of ATP that contributes to vasodilatation in the pulmonary vascular bed of the rat. *British Journal of Pharmacology*, **1993**, 109, 466-72	8.6	59
517	Comparative pharmacological and histochemical evidence for purinergic inhibitory innervation of the portal vein of the rabbit, but not guinea-pig. *British Journal of Pharmacology*, **1979**, 65, 377-88	8.6	59
516	P2X and P2Y purinoceptor expression in pancreas from streptozotocin-diabetic rats. *Molecular and Cellular Endocrinology*, **2003**, 204, 141-54	4.4	58
515	Sensitization by extracellular Ca(2+) of rat P2X(5) receptor and its pharmacological properties compared with rat P2X(1). *Molecular Pharmacology*, **2002**, 62, 957-66	4.3	58
514	Interstitial cells of Cajal and purinergic signalling. *Autonomic Neuroscience: Basic and Clinical*, **2002**, 97, 68-72	2.4	58
513	P2X receptors in the rat duodenal villus. *Cell and Tissue Research*, **1999**, 297, 111-7	4.2	58
512	Uptake and Flow-induced Release of Uridine Nucleotides from Isolated Vascular Endothelial Cells. *Endothelium: Journal of Endothelial Cell Research*, **1995**, 2, 279-285		58
511	The actions of adenosine 5Ptriphosphate on guinea-pig intracardiac neurones in culture. *British Journal of Pharmacology*, **1990**, 100, 269-76	8.6	58
510	Activity of Novel Adenine Nucleotide Derivatives as Agonists and Antagonists at Recombinant Rat P2X Receptors. *Drug Development Research*, **2000**, 49, 253-259	5.1	57
509	Blood cells: an historical account of the roles of purinergic signalling. *Purinergic Signalling*, **2015**, 11, 411-38	3.8	56
508	Extrinsic purinergic regulation of neural stem/progenitor cells: implications for CNS development and repair. *Stem Cell Reviews and Reports*, **2012**, 8, 755-67	6.4	56
507	Purinergic signalling in autonomic control. *Trends in Neurosciences*, **2009**, 32, 241-8	13.3	56
506	Characterisation of subtypes of the P2X and P2Y families of ATP receptors in the foetal human heart. *Life Sciences*, **1998**, 62, 697-703	6.8	56
505	Non-synaptic transmission at autonomic neuroeffector junctions. *Neurochemistry International*, **2008**, 52, 14-25	4.4	56
504	Multiple P2X and P2Y receptor subtypes in mouse J774, spleen and peritoneal macrophages. *Biochemical Pharmacology*, **2005**, 69, 641-55	6	56
503	P2X purinoceptor-mediated excitation of trigeminal lingual nerve terminals in an in vitro intra-arterially perfused rat tongue preparation. *Journal of Physiology*, **2000**, 524 Pt 3, 891-902	3.9	56
502	A pyridoxine cyclic phosphate and its 6-azoaryl derivative selectively potentiate and antagonize activation of P2X1 receptors. *Journal of Medicinal Chemistry*, **1998**, 41, 2201-6	8.3	56

501	Modulatory activity of extracellular H+ and Zn2+ on ATP-responses at rP2X1 and rP2X3 receptors. *British Journal of Pharmacology*, **1999**, 128, 486-92	8.6	56
500	Effects of ATP analogues and basic fibroblast growth factor on astroglial cell differentiation in primary cultures of rat striatum. *International Journal of Developmental Neuroscience*, **1995**, 13, 685-93	2.7	56
499	Long-lasting damage to the internal male genital organs and their adrenergic innervation in rats following chronic treatment with the antihypertensive drug guanethidine. *Fertility and Sterility*, **1972**, 23, 657-67	4.8	56
498	Localization of P2X3 receptors and coexpression with P2X2 receptors during rat embryonic neurogenesis. *Journal of Comparative Neurology*, **2002**, 443, 368-82	3.4	55
497	Coexpression of P2X(3) and P2X(2) receptor subunits in varying amounts generates heterogeneous populations of P2X receptors that evoke a spectrum of agonist responses comparable to that seen in sensory neurons. *Journal of Pharmacology and Experimental Therapeutics*, **2001**, 296, 1043-50	4.7	55
496	Capsaicin-sensitive sensory-motor neurotransmission in the peripheral control of cardiovascular function. *Cardiovascular Research*, **1996**, 31, 467-479	9.9	54
495	Selective expression of purinoceptor cP2Y1 suggests a role for nucleotide signalling in development of the chick embryo. *Developmental Dynamics*, **1999**, 214, 152-8	2.9	54
494	Changes in expression of autonomic nerves in aging and disease. *Journal of the Autonomic Nervous System*, **1990**, 30 Suppl, S25-34		54
493	The effect of adenyl compounds on the rat heart. *British Journal of Pharmacology*, **1983**, 79, 211-8	8.6	54
492	Therapeutic potential of purinergic signalling for diseases of the urinary tract. *BJU International*, **2011**, 107, 192-204	5.6	53
491	P2X receptor immunoreactivity in the male genital organs of the rat. *Cell and Tissue Research*, **2000**, 300, 321-30	4.2	53
490	Potential functional roles of extracellular ATP in kidney and urinary tract. *Nephron Experimental Nephrology*, **1998**, 6, 200-7		53
489	Integration of factors controlling vascular tone. Overview. *Anesthesiology*, **1993**, 79, 1368-80	4.3	53
488	Serotonin is localized in endothelial cells of coronary arteries and released during hypoxia: a possible new mechanism for hypoxia-induced vasodilatation of the rat heart. *Experientia*, **1988**, 44, 705-7		53
487	Purinergic transmitters inhibit bone formation by cultured osteoblasts. *Bone*, **1997**, 21, 393-9	4.7	52
486	Changes in expression of P2 receptors in rat and mouse pancreas during development and ageing. *Cell and Tissue Research*, **2001**, 306, 373-83	4.2	52
485	Molecular cloning and characterization of a novel ATP P2X receptor subtype from embryonic chick skeletal muscle. *Journal of Biological Chemistry*, **2000**, 275, 14401-7	5.4	52
484	Rat bladder in the early stages of streptozotocin-induced diabetes: adrenergic and cholinergic innervation. *Diabetologia*, **1984**, 26, 81-7	10.3	52

483	Purinergic signalling in the pancreas in health and disease. *Journal of Endocrinology*, **2012**, 213, 123-41	4.7	51
482	Development of nerves expressing P2X3 receptors in the myenteric plexus of rat stomach. *Histochemistry and Cell Biology*, **2004**, 122, 111-9	2.4	51
481	Diinosine pentaphosphate: an antagonist which discriminates between recombinant P2X(3) and P2X(2/3) receptors and between two P2X receptors in rat sensory neurones. *British Journal of Pharmacology*, **2000**, 130, 1378-84	8.6	51
480	Evidence for the involvement of purinergic signalling in the control of respiration. *Neuroscience*, **2001**, 107, 481-90	3.9	51
479	Comparative studies on the affinities of ATP derivatives for P2x-purinoceptors in rat urinary bladder. *British Journal of Pharmacology*, **1994**, 112, 1151-9	8.6	51
478	An electrophysiological analysis of the effect of reactive blue 2, a putative P2-purinoceptor antagonist, on inhibitory junction potentials of rat caecum. *European Journal of Pharmacology*, **1986** , 127, 197-204	5.3	51
477	Purinergic signalling in endocrine organs. *Purinergic Signalling*, **2014**, 10, 189-231	3.8	50
476	Functional up-regulation of P2X 3 receptors in the chronically compressed dorsal root ganglion. *Pain*, **2008**, 140, 23-34	8	50
475	Purinergic signaling along the renal tubule: the current state of play. *Physiology*, **2003**, 18, 237-41	9.8	50
474	Activation of ureter nociceptors by exogenous and endogenous ATP in guinea pig. *Neuropharmacology*, **2004**, 47, 1093-101	5.5	50
473	Neuropeptide Y neuromodulation of sympathetic co-transmission in the guinea-pig vas deferens. *British Journal of Pharmacology*, **1990**, 100, 457-62	8.6	50
472	Dedifferentiation, redifferentiation and bundle formation of smooth muscle cells in tissue culture: the influence of cell number and nerve fibres. *Journal of Embryology and Experimental Morphology*, **1974**, 32, 297-323		50
471	Pharmacological and molecular characterization of P2X receptors in rat pelvic ganglion neurons. *British Journal of Pharmacology*, **1998**, 125, 771-81	8.6	49
470	Expression of two ATP-gated ion channels, P2X5 and P2X6, in developing chick skeletal muscle. *Developmental Dynamics*, **1999**, 216, 442-9	2.9	49
469	The non-adrenergic, inhibitory innervation of the guinea-pig gallbladder. *Pflugers Archiv European Journal of Physiology*, **1978**, 377, 43-9	4.6	49
468	Do some sympathetic neurones synthesize and release both noradrenaline and acetylcholine?. *Progress in Neurobiology*, **1978**, 11, 205-22	10.9	49
467	Antagonism of the effects of purinergic nerve stimulation and exogenously applied ATP on the guinea-pig taenia coli by 2-substituted imidazolines and related compounds. *European Journal of Pharmacology*, **1973**, 23, 264-9	5.3	49
466	Vas deferens--a model used to establish sympathetic cotransmission. *Trends in Pharmacological Sciences*, **2010**, 31, 131-9	13.2	48

465	Changes in P2X3 purinoceptors in sensory ganglia of the mouse during embryonic and postnatal development. *Histochemistry and Cell Biology*, **2004**, 122, 539-51	2.4	48
464	Human melanomas express functional P2 X(7) receptors. *Cell and Tissue Research*, **2005**, 321, 411-8	4.2	48
463	Distribution of adrenergic nerves and changes in neuromuscular transmission in the mouse vas deferens during postnatal development. *Developmental Biology*, **1970**, 21, 491-505	3.1	48
462	Dual control of vascular tone and remodelling by ATP released from nerves and endothelial cells. *Pharmacological Reports*, **2008**, 60, 12-20	3.9	48
461	Purinergic signalling in the reproductive system in health and disease. *Purinergic Signalling*, **2014**, 10, 157-87	3.8	47
460	P2 receptors in the thymus: expression of P2X and P2Y receptors in adult rats, an immunohistochemical and in situ hybridisation study. *Cell and Tissue Research*, **2000**, 300, 295-306	4.2	47
459	An assessment of the antagonistic activity of reactive blue 2 at P1- and P2-purinoceptors: supporting evidence for purinergic innervation of the rabbit portal vein. *European Journal of Pharmacology*, **1987**, 140, 47-53	5.3	47
458	Distribution of P2Y2 receptors in the guinea pig enteric nervous system and its coexistence with P2X2 and P2X3 receptors, neuropeptide Y, nitric oxide synthase and calretinin. *Histochemistry and Cell Biology*, **2005**, 124, 379-90	2.4	46
457	Characterization of P2 receptors modulating neural activity in rat rostral ventrolateral medulla. *Neuroscience*, **1999**, 94, 867-78	3.9	46
456	Intracellular studies of the electrophysiological properties of cultured intracardiac neurones of the guinea-pig. *Journal of Physiology*, **1987**, 388, 349-66	3.9	46
455	Neuropeptide action on the guinea-pig bladder; a comparison with the effects of field stimulation and ATP. *European Journal of Pharmacology*, **1984**, 105, 85-94	5.3	46
454	Evidence for ATP and noradrenaline as cotransmitters in sympathetic nerves. *Clinical Science*, **1985**, 68 Suppl 10, 89s-92s		46
453	Short- and long-term (trophic) purinergic signalling. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2016**, 371,	5.8	46
452	THE CONCISE GUIDE TO PHARMACOLOGY 2021/22: G protein-coupled receptors. *British Journal of Pharmacology*, **2021**, 178 Suppl 1, S27-S156	8.6	46
451	Effect of extracellular ATP on the growth of hormone-refractory prostate cancer in vivo. *BJU International*, **2008**, 102, 108-12	5.6	45
450	P2Y receptors present in the native and isolated rat glomerulus. *Nephron Physiology*, **2004**, 96, p79-90		45
449	The distribution of P2X5 purinergic receptors in the enteric nervous system of mouse. *Cell and Tissue Research*, **2005**, 319, 191-200	4.2	45
448	Evidence for the involvement of both ATP and nitric oxide in non-adrenergic, non-cholinergic inhibitory neurotransmission in the rabbit portal vein. *British Journal of Pharmacology*, **1993**, 109, 606-8	8.6	45

447	Distribution and colocalization of nitric oxide synthase and NADPH-diaphorase in adrenal gland of developing, adult and aging Sprague-Dawley rats. *Cell and Tissue Research*, **1994**, 276, 133-41	4.2	45
446	Analysis of P2-purinoceptor subtypes on the smooth muscle and endothelium of rabbit coronary artery. *Journal of Cardiovascular Pharmacology*, **1994**, 23, 709-15	3.1	45
445	Chronic hypoxia changes the ratio of endothelin to ATP release from rat aortic endothelial cells exposed to high flow. *Proceedings of the Royal Society B: Biological Sciences*, **1992**, 247, 131-5	4.4	45
444	A comparative study of electrical field stimulation of the guinea-pig, ferret and marmoset urinary bladder. *European Journal of Pharmacology*, **1985**, 114, 311-6	5.3	45
443	Release of ATP from perfused heart during coronary vasodilatation. *Journal of Vascular Research*, **1974**, 11, 110-9	1.9	45
442	An Introduction to Purinergic Receptors **1981**, 1-45		45
441	Pathological roles of purinergic signaling in the liver. *Journal of Hepatology*, **2012**, 57, 916-20	13.4	44
440	Changes in expression of P2X purinoceptors in rat cerebellum during postnatal development. *Developmental Brain Research*, **2005**, 156, 147-57		44
439	Distribution of P2X receptor subtypes in the rat female reproductive tract at late pro-oestrus/early oestrus. *Cell and Tissue Research*, **2000**, 299, 105-113	4.2	44
438	Immunohistochemical identification of cells expressing ATP-gated cation channels (P2X receptors) in the adult rat thyroid. *Journal of Anatomy*, **2001**, 198, 569-79	2.9	44
437	Introduction: Purinergic transmission. *Seminars in Neuroscience*, **1996**, 8, 171-174		44
436	A study of bladder dysfunction during streptozotocin-induced diabetes in the rat using an in vitro whole bladder preparation. *Journal of Urology*, **1987**, 138, 1279-84	2.5	44
435	Purinergic receptor agonists modulate phagocytosis and clearance of apoptotic cells in macrophages. *Immunobiology*, **2011**, 216, 1-11	3.4	43
434	Unresolved issues and controversies in purinergic signalling. *Journal of Physiology*, **2008**, 586, 3307-12	3.9	43
433	Purinoceptor expression in regenerating skeletal muscle in the mdx mouse model of muscular dystrophy and in satellite cell cultures. *FASEB Journal*, **2004**, 18, 1404-6	0.9	43
432	ALTERATIONS IN CHOLINERGIC AND PURINERGIC SIGNALING IN A MODEL OF THE OBSTRUCTED BLADDER. *Journal of Urology*, **2001**, 166, 1530-1533	2.5	43
431	Ultrastructural localisation of ATP-gated P2X2 receptor immunoreactivity in the rat hypothalamo-neurohypophysial system. *Journal of Neurocytology*, **1999**, 28, 495-504		43
430	The activation of P1- and P2-purinoceptors in the guinea-pig left atrium by diadenosine polyphosphates. *British Journal of Pharmacology*, **1996**, 118, 1294-300	8.6	43

429	P2 purinoceptor-activated inward currents in follicular oocytes of Xenopus laevis. *Journal of Physiology*, **1996**, 494 (Pt 1), 17-28	3.9	43
428	Heterogeneous distribution of [3H]alpha,beta-methylene ATP binding sites in blood vessels. *Journal of Vascular Research*, **1993**, 30, 87-101	1.9	43
427	Increased shear stress leads to differential release of endothelin and ATP from isolated endothelial cells from 4- and 12-month-old male rabbit aorta. *Journal of Vascular Research*, **1992**, 29, 420-5	1.9	43
426	Purinergic Signalling and the Nervous System **2012**,		43
425	Purinergic signalling during development and ageing. *Purinergic Signalling*, **2015**, 11, 277-305	3.8	42
424	Purinergic receptor-mediated effects of adenosine 5Ptriphosphate in urological malignant diseases. *International Journal of Urology*, **2009**, 16, 143-50	2.3	42
423	Purinergic receptor-mediated effects of ATP in high-grade bladder cancer. *BJU International*, **2008**, 101, 106-12	5.6	42
422	Trophic actions of 2-chloroadenosine and bFGF on cultured myenteric neurones. *NeuroReport*, **1995** , 6, 937-41	1.7	42
421	ATP signalling in epilepsy. *Purinergic Signalling*, **2008**, 4, 339-46	3.8	41
420	P2 receptors in human heart: upregulation of P2X6 in patients undergoing heart transplantation, interaction with TNFalpha and potential role in myocardial cell death. *Journal of Molecular and Cellular Cardiology*, **2005**, 39, 929-39	5.8	41
419	Region-specific distribution of the P2Y4 receptor in enteric glial cells and interstitial cells of Cajal within the guinea-pig gastrointestinal tract. *Autonomic Neuroscience: Basic and Clinical*, **2006**, 126-127, 299-306	2.4	41
418	P2X4 and P2X6 receptors associate with VE-cadherin in human endothelial cells. *Cellular and Molecular Life Sciences*, **2002**, 59, 870-81	10.3	41
417	Both the ADP receptors P2Y1 and P2Y12, play a role in controlling shape change in human platelets. *Platelets*, **2003**, 14, 15-20	3.6	41
416	An Increase of Neuropeptide Y But Not Nitric Oxide Synthase-Immunoreactive Nerves in the Bladder Neck from Male Patients with Bladder Neck Dyssynergia. *Journal of Urology*, **1995**, 154, 1231-1236	2.5	41
415	Motor activity and neurotransmitter release in the gastric fundus of streptozotocin-diabetic rats. *European Journal of Pharmacology*, **1991**, 194, 225-34	5.3	41
414	An in vivo model of melanoma: treatment with ATP. *Purinergic Signalling*, **2009**, 5, 327-33	3.8	40
413	The recently deorphanized GPR80 (GPR99) proposed to be the P2Y15 receptor is not a genuine P2Y receptor. *Trends in Pharmacological Sciences*, **2005**, 26, 8-9	13.2	40
412	Expression of nucleotide P2X receptor subtypes during spermatogenesis in the adult rat testis. *Cells Tissues Organs*, **2001**, 169, 377-87	2.1	40

411	Evidence for a P2-purinoceptor mediating vasoconstriction by UTP, ATP and related nucleotides in the isolated pulmonary vascular bed of the rat. *British Journal of Pharmacology*, **1996**, 118, 1415-20	8.6	40
410	[3H]-alpha, beta-methylene ATP, a radioligand labelling P2-purinoceptors. *Journal of the Autonomic Nervous System*, **1989**, 28, 85-8		40
409	The role of adenosine triphosphate in migraine. *Biomedicine and Pharmacotherapy*, **1989**, 43, 727-36	7.5	40
408	Postjunctional synergism of noradrenaline and adenosine 5Ptriphosphate in the mesenteric arterial bed of the rat. *European Journal of Pharmacology*, **1990**, 175, 291-9	5.3	40
407	Interactions between autonomic nerves and smooth and cardiac muscle cells in tissue culture. *Developmental Biology*, **1973**, 32, 194-200	3.1	40
406	General Principles of Neuronal Co-transmission: Insights From Multiple Model Systems. *Frontiers in Neural Circuits*, **2018**, 12, 117	3.5	39
405	Microglial morphology and its transformation after challenge by extracellular ATP in vitro. *Journal of Neuroscience Research*, **2006**, 83, 91-101	4.4	39
404	Immunolocalisation of P2X and P2Y nucleotide receptors in the rat nasal mucosa. *Cell and Tissue Research*, **2005**, 319, 27-36	4.2	39
403	Embryonic expression of a P2X(3) receptor encoding gene in zebrafish. *Mechanisms of Development* , **2000**, 99, 149-52	1.7	39
402	Characterization of P2X- and P2Y-purinoceptors in the rabbit hepatic arterial vasculature. *British Journal of Pharmacology*, **1991**, 103, 1108-13	8.6	39
401	Effects of phosphorothioate analogues of ATP, ADP and AMP on guinea-pig taenia coli and urinary bladder. *British Journal of Pharmacology*, **1984**, 82, 369-74	8.6	39
400	Autonomic nerve-smooth muscle transmission. *Nature*, **1960**, 187, 951-2	50.4	39
399	Purinergic Signalling in Gut. *Handbook of Experimental Pharmacology*, **2001**, 141-238	3.2	39
398	P2X receptors and their role in female idiopathic detrusor instability. *Journal of Urology*, **2002**, 167, 157-64	2.5	39
397	Current state of purinoceptor research. *Pharmaceutica Acta Helvetiae*, **1995**, 69, 231-42		38
396	Development and perspectives of the purinoceptor concept. *Autonomic and Autacoid Pharmacology* , **1996**, 16, 295-302		38
395	Modulation of neurotransmission in the guinea-pig vas deferens by capsaicin: involvement of calcitonin gene-related peptide and substance P. *British Journal of Pharmacology*, **1989**, 98, 707-13	8.6	38
394	High- and low-affinity binding sites for [3H]-alpha, beta-methylene ATP in rat urinary bladder membranes. *British Journal of Pharmacology*, **1990**, 101, 291-6	8.6	38

393	The effects of Bay K 8644 and nifedipine on the responses of rat urinary bladder to electrical field stimulation, beta,gamma-methylene ATP and acetylcholine. *British Journal of Pharmacology*, **1990**, 101, 494-8	8.6	38
392	P2 purinoceptors: historical perspective and classification. *Novartis Foundation Symposium*, **1996**, 198, 1-28; discussion 29-34		38
391	17β-estradiol rapidly attenuates P2X3 receptor-mediated peripheral pain signal transduction via ERβ and GPR30. *Endocrinology*, **2013**, 154, 2421-33	4.8	37
390	NG-nitro-L-arginine methyl ester attenuates vasodilator responses to acetylcholine but enhances those to sodium nitroprusside. *Journal of Pharmacy and Pharmacology*, **1991**, 43, 871-4	4.8	37
389	Characterization of calcium-independent purinergic receptor-mediated apoptosis in hormone-refractory prostate cancer. *BJU International*, **2008**, 101, 352-9	5.6	37
388	Altered ATP-sensitive P2 receptor subtype expression in the Han:SPRD cy/+ rat, a model of autosomal dominant polycystic kidney disease. *Cells Tissues Organs*, **2004**, 178, 168-79	2.1	37
387	Purinergic receptor expression in the regeneration epidermis in a rat model of normal and delayed wound healing. *Experimental Dermatology*, **2003**, 12, 860-71	4	37
386	Localization of P2X and P2Y receptors in dorsal root ganglia of the cat. *Journal of Histochemistry and Cytochemistry*, **2005**, 53, 1273-82	3.4	37
385	Raynaud's phenomenon. *Lancet, The*, **1995**, 346, 283-290	40	37
384	Hypoxia, endothelium, and purines. *Drug Development Research*, **1993**, 28, 301-305	5.1	37
383	FITC-labelled antibody staining of tropomyosin-containing fibrils in smooth, cardiac and skeletal muscle cells, prefusion myoblasts, fibroblasts, endothelial cells and 3T3 cells in culture. *Cell and Tissue Research*, **1977**, 183, 153-66	4.2	37
382	Evidence for basolateral P2Y(6) receptors along the rat proximal tubule: functional and molecular characterization. *Journal of the American Society of Nephrology: JASN*, **2001**, 12, 1640-1647	12.7	37
381	Cotransmission in the autonomic nervous system. *Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn*, **2013**, 117, 23-35	3	36
380	Expression of P2X6 receptors in the enteric nervous system of the rat gastrointestinal tract. *Histochemistry and Cell Biology*, **2010**, 133, 177-88	2.4	36
379	Pharmacological comparison of P2X receptors on rat coeliac, mouse coeliac and mouse pelvic ganglion neurons. *Neuropharmacology*, **2000**, 39, 172-80	5.5	36
378	Distribution and colocalization of nitric oxide synthase and calretinin in myenteric neurons of developing, aging, and Crohn's disease human small intestine. *Digestive Diseases and Sciences*, **1999**, 44, 1579-87	4	36
377	Inhibition of extracellular ATP degradation in endothelial cells. *Life Sciences*, **1995**, 57, 763-71	6.8	36
376	Evidence that the P1-purinoceptor in the guinea-pig taenia coli is an A2-subtype. *British Journal of Pharmacology*, **1984**, 81, 533-41	8.6	36

375	Evidence that ATP is a neurotransmitter in the frog heart. *European Journal of Pharmacology*, **1986**, 124, 285-9	5.3	36
374	Fluorescent histochemical localisation of quinacrine-positive neurones in the guinea-pig and rabbit atrium. *Cardiovascular Research*, **1982**, 16, 384-90	9.9	36
373	Astroglia-Derived ATP Modulates CNS Neuronal Circuits. *Trends in Neurosciences*, **2019**, 42, 885-898	13.3	35
372	Control of vascular tone by purines and pyrimidines. *British Journal of Pharmacology*, **2010**, 161, 527-9	8.6	35
371	Sympathetic innervation of human mesenteric artery and vein. *Journal of Vascular Research*, **2008**, 45, 323-32	1.9	35
370	Effects of streptozotocin-diabetes on sympathetic nerve, endothelial and smooth muscle function in the rat mesenteric arterial bed. *European Journal of Pharmacology*, **1995**, 286, 193-9	5.3	35
369	Mesenteric arterial function in the rat in pregnancy: role of sympathetic and sensory-motor perivascular nerves, endothelium, smooth muscle, nitric oxide and prostaglandins. *British Journal of Pharmacology*, **1996**, 117, 1463-70	8.6	35
368	Contribution of ATP and nitric oxide to NANC inhibitory transmission in rat pyloric sphincter. *British Journal of Pharmacology*, **1994**, 113, 681-6	8.6	35
367	The purinergic component of human vas deferens contraction. *Fertility and Sterility*, **2006**, 85, 932-9	4.8	34
366	Investigation of the effects of P2 purinoceptor ligands on the micturition reflex in female urethane-anaesthetized rats. *British Journal of Pharmacology*, **2004**, 142, 519-30	8.6	34
365	Expanding field of purinergic signaling. *Drug Development Research*, **2001**, 52, 1-10	5.1	34
364	Guinea-pig sympathetic neurons express varying proportions of two distinct P2X receptors. *Journal of Physiology*, **2000**, 523 Pt 2, 391-402	3.9	34
363	Guanethidine sympathectomy of mature rats leads to increases in calcitonin gene-related peptide and vasoactive intestinal polypeptide-containing nerves. *Neuroscience*, **1992**, 47, 453-61	3.9	34
362	5-Hydroxytryptamine demonstrated immunohistochemically in rat cerebrovascular nerves largely represents 5-hydroxytryptamine uptake into sympathetic nerve fibres. *Neuroscience*, **1989**, 29, 453-62	3.9	34
361	Enkephalins modulate inhibitory neuromuscular transmission in circular muscle of human colon via delta-opioid receptors. *Journal of Physiology*, **1990**, 431, 465-78	3.9	34
360	Long-term chemical sympathectomy leads to an increase of neuropeptide Y immunoreactivity in cerebrovascular nerves and iris of the developing rat. *Neuroscience*, **1990**, 34, 369-78	3.9	34
359	Inhibition of G protein-coupled P2Y2 receptor induced analgesia in a rat model of trigeminal neuropathic pain. *Molecular Pain*, **2014**, 10, 21	3.4	33
358	Estrogen modulation of peripheral pain signal transduction: involvement of P2X(3) receptors. *Purinergic Signalling*, **2011**, 7, 73-83	3.8	33

357	The P2Y(6) receptor stimulates bone resorption by osteoclasts. *Endocrinology*, **2011**, 152, 3706-16	4.8	33
356	Expression of P2X5 receptors in the mouse CNS. *Neuroscience*, **2008**, 156, 673-92	3.9	33
355	Purinergic receptors as future targets for treatment of functional GI disorders. *Gut*, **2008**, 57, 1193-4	19.2	33
354	Postnatal development of P2 receptors in the murine gastrointestinal tract. *Neuropharmacology*, **2006**, 50, 690-704	5.5	33
353	Distribution of P2Y6 and P2Y12 receptor: their colocalization with calbindin, calretinin and nitric oxide synthase in the guinea pig enteric nervous system. *Histochemistry and Cell Biology*, **2006**, 125, 327-36	2.4	33
352	Immunoreactivity to P2X(6) receptors in the rat hypothalamo-neurohypophysial system: an ultrastructural study with extravidin and colloidal gold-silver labelling. *Neuroscience*, **2001**, 106, 621-31	3.9	33
351	Comparative study of the actions of AP5A and alpha,beta-methylene ATP on nonadrenergic, noncholinergic neurogenic excitation in the guinea-pig vas deferens. *British Journal of Pharmacology*, **1988**, 94, 699-706	8.6	33
350	Purinergic signalling in the lower urinary tract. *Acta Physiologica*, **2013**, 207, 40-52	5.6	32
349	Inhibitory effects of some purinergic agents on ecto-ATPase activity and pattern of stepwise ATP hydrolysis in rat liver plasma membranes. *Biochimica Et Biophysica Acta - Biomembranes*, **2000**, 1466, 234-44	3.8	32
348	Modulation by prostaglandin E2 of ATP and noradrenaline co-transmission in the guinea-pig vas deferens. *Autonomic and Autacoid Pharmacology*, **1990**, 10, 363-72		32
347	Adenosine-induced dilatation of the rabbit hepatic arterial bed is mediated by A2-purinoceptors. *British Journal of Pharmacology*, **1991**, 103, 1103-7	8.6	32
346	Effects of reserpine and 6-hydroxydopamine on the adrenergic and purinergic components of sympathetic nerve responses of the rabbit saphenous artery. *British Journal of Pharmacology*, **1987**, 92, 871-80	8.6	32
345	ATP and vasoactive intestinal polypeptide relaxant responses in hamster isolated proximal urethra. *British Journal of Pharmacology*, **1998**, 124, 1069-74	8.6	31
344	Multiple P2X receptors on guinea-pig pelvic ganglion neurons exhibit novel pharmacological properties. *British Journal of Pharmacology*, **2001**, 132, 221-33	8.6	31
343	Single channel properties of P2X ATP receptors in outside-out patches from rat hippocampal granule cells. *Journal of Physiology*, **2000**, 527 Pt 3, 529-47	3.9	31
342	Relative contribution of P2U- and P2Y-purinoceptors to endothelium-dependent vasodilatation in the golden hamster isolated mesenteric arterial bed. *British Journal of Pharmacology*, **1996**, 117, 1797-802	8.6	31
341	Neurite outgrowth of striatal neurons in vitro: involvement of purines in the growth-promoting effect of myenteric plexus explants. *International Journal of Developmental Neuroscience*, **1996**, 14, 439-451	2.7	31
340	Effects of cyclopiazonic acid on contractility and ecto-ATPase activity in guinea-pig urinary bladder and vas deferens. *British Journal of Pharmacology*, **1994**, 113, 669-74	8.6	31

339	Distribution and colocalization of NADPH-diaphorase activity, nitric oxide synthase immunoreactivity, and VIP immunoreactivity in the newly hatched chicken gut. *The Anatomical Record*, **1995**, 243, 10-8		31
338	Actions of tachykinins on the rabbit mesenteric artery: substance P and [Glp6,L-Pro9]SP6-11 are potent agonists for endothelial neurokinin-1 receptors. *British Journal of Pharmacology*, **1989**, 97, 1218-24	8.6	31
337	Evidence that ATP is involved as a co-transmitter in the hypogastric nerve supplying the seminal vesicle of the guinea-pig. *European Journal of Pharmacology*, **1985**, 110, 363-6	5.3	31
336	Immunocytochemical and pharmacological characterisation of P2-purinoceptor-mediated cell growth and death in PC-3 hormone refractory prostate cancer cells. *Anticancer Research*, **2004**, 24, 2853-9	2.3	31
335	Impaired sensory-motor nerve function in the isolated mesenteric arterial bed of streptozotocin-diabetic and ganglioside-treated streptozotocin-diabetic rats. *British Journal of Pharmacology*, **1993**, 110, 1105-11	8.6	30
334	Indirect evidence that purinergic modulation of perivascular adrenergic neurotransmission in the portal vein is a physiological process. *British Journal of Pharmacology*, **1984**, 82, 359-68	8.6	30
333	Local mechanisms of blood flow control by perivascular nerves and endothelium. *Journal of Hypertension Supplement: Official Journal of the International Society of Hypertension*, **1990**, 8, S95-106		30
332	Purinergic Signalling in Lower Urinary Tract **2001**, 423-515		30
331	Synthesis and Structure-Activity Relationships of Pyridoxal-6-arylazo-5Pphosphate and Phosphonate Derivatives as P2 Receptor Antagonists. *Drug Development Research*, **1998**, 45, 52-66	5.1	29
330	Smooth muscle and purinergic contraction of the human, rabbit, rat, and mouse testicular capsule. *Biology of Reproduction*, **2006**, 74, 473-80	3.9	29
329	P2X(7) receptors are expressed during mouse nephrogenesis and in collecting duct cysts of the cpk/cpk mouse. *Nephron Experimental Nephrology*, **2002**, 10, 34-42		29
328	A pharmacological and histochemical study of hamster urethra and the role of urothelium. *British Journal of Pharmacology*, **1996**, 119, 655-62	8.6	29
327	The absence of autonomic perivascular nerves in human colorectal liver metastases. *British Journal of Cancer*, **1996**, 73, 349-59	8.7	29
326	Vasodilator response of coronary smooth muscle to the sympathetic co-transmitters noradrenaline and adenosine 5Ptriphosphate. *British Journal of Pharmacology*, **1991**, 104, 337-42	8.6	29
325	Introduction to Purinergic Signaling. *Methods in Molecular Biology*, **2020**, 2041, 1-15	1.4	29
324	Introduction to Purinergic Signalling in the Brain. *Advances in Experimental Medicine and Biology*, **2020**, 1202, 1-12	3.6	29
323	Alterations in purinergic and cholinergic components of contractile responses of isolated detrusor contraction in a rat model of partial bladder outlet obstruction. *BJU International*, **2006**, 97, 372-8	5.6	28
322	Evidence for noradrenergic-purinergic cotransmission in the hepatic artery of the rabbit. *British Journal of Pharmacology*, **1990**, 99, 835-9	8.6	28

321	Actions of adenine dinucleotides in the guinea-pig taenia coli: NAD acts indirectly on P1-purinoceptors; NADP acts like a P2-purinoceptor agonist. *British Journal of Pharmacology*, **1985**, 84, 825-31	8.6	28
320	Degeneration of adrenergic neurons following guanethidine treatment: an ultrastructural study. *Virchows Archiv B, Cell Pathology Including Molecular Pathology*, **1972**, 11, 182-97		28
319	Cell culture: complications due to mechanical release of ATP and activation of purinoceptors. *Cell and Tissue Research*, **2017**, 370, 1-11	4.2	27
318	Introduction and perspective, historical note. *Frontiers in Cellular Neuroscience*, **2013**, 7, 227	6.1	27
317	Prominent sympathetic purinergic vasoconstriction in the rabbit splenic artery: potentiation by 2,2Ppyridylisatogen tosylate. *British Journal of Pharmacology*, **1997**, 120, 530-6	8.6	27
316	Analysis of innervation of human mesenteric vessels in non-inflamed and inflamed bowel--a confocal and functional study. *Neurogastroenterology and Motility*, **2008**, 20, 660-70	4	27
315	Regulation of vascular tone by UTP and UDP in isolated rat intrapulmonary arteries. *European Journal of Pharmacology*, **1999**, 370, 139-43	5.3	27
314	The involvement of the endothelium in the relaxation of the leopard frog (Rana pipiens) aorta in response to acetylcholine. *British Journal of Pharmacology*, **1996**, 118, 1518-22	8.6	27
313	Evidence for an inhibitory prejunctional P1-purinoceptor in the rat portal vein with characteristics of the A2 rather than of the A1 subtype. *European Journal of Pharmacology*, **1984**, 100, 363-8	5.3	27
312	Comparative studies of quinacrine-positive neurones in the myenteric plexus of stomach and intestine of guinea-pig, rabbit and rat. *Cell and Tissue Research*, **1981**, 221, 93-107	4.2	27
311	Histochemical diagnosis of Hirschsprung's disease. *Lancet, The*, **1969**, 1, 894-5	40	27
310	The involvement of purinergic signalling in obesity. *Purinergic Signalling*, **2018**, 14, 97-108	3.8	26
309	Block of P2X7 receptors could partly reverse the delayed neuronal death in area CA1 of the hippocampus after transient global cerebral ischemia. *Purinergic Signalling*, **2013**, 9, 663-75	3.8	26
308	P2Y2 receptor-mediated modulation of estrogen-induced proliferation of breast cancer cells. *Molecular and Cellular Endocrinology*, **2011**, 338, 28-37	4.4	26
307	Gap junction reduction in cardiomyocytes following transforming growth factor-beta treatment and Trypanosoma cruzi infection. *Memorias Do Instituto Oswaldo Cruz*, **2009**, 104, 1083-90	2.6	26
306	Characterization of P2 receptors for purine and pyrimidine nucleotides in human placental cotyledons. *British Journal of Pharmacology*, **1997**, 121, 1121-6	8.6	26
305	Pharmacological and histochemical evidence for P2X receptors in human umbilical vessels. *European Journal of Pharmacology*, **1998**, 353, 59-65	5.3	26
304	ATP release from the human ureter on distension and P2X(3) receptor expression on suburothelial sensory nerves. *Purinergic Signalling*, **2008**, 4, 377-81	3.8	26

303	P2X5 receptors are expressed on neurons containing arginine vasopressin and nitric oxide synthase in the rat hypothalamus. *Brain Research*, **2006**, 1099, 56-63	3.7	26
302	Calretinin immunoreactivity in adrenal glands of developing, adult and ageing Sprague-Dawley rats. *International Journal of Developmental Neuroscience*, **1995**, 13, 515-21	2.7	26
301	Species differences in characteristics and distribution of [3H] alpha,beta-methylene ATP binding sites in urinary bladder and urethra of rat, guinea-pig and rabbit. *European Journal of Pharmacology*, **1992**, 216, 59-66	5.3	26
300	Adrenergic innervation of the striated muscle of the intrinsic external urethral sphincter from patients with lower motor spinal cord lesion. *Journal of Urology*, **1989**, 141, 47-9	2.5	26
299	Comparison of the effects of ultraviolet light and purinergic nerve stimulation on the guinea-pig taenia coli. *British Journal of Pharmacology*, **1978**, 62, 293-302	8.6	26
298	Innervation of the lungs of the sleepy lizard (Trachysaurus rugosus). I. Fluorescent histochemistry of catecholamines. *Comparative Biochemistry and Physiology*, **1967**, 22, 809-13		26
297	Recent Concepts of Chemical Communication between Excitable Cells **1983**, 7-35		26
296	Nitric oxide synthase is co-localized with vasoactive intestinal polypeptide in postganglionic parasympathetic nerves innervating the rat vas deferens. *Neuroscience*, **1998**, 83, 607-16	3.9	25
295	Purinergic Receptors in the Nervous System. *Current Topics in Membranes*, **2003**, 54, 307-368	2.2	25
294	Vasodilatation of intrapulmonary arteries to P2-receptor nucleotides in normal and pulmonary hypertensive newborn piglets. *British Journal of Pharmacology*, **1999**, 128, 543-8	8.6	25
293	Distribution of P2X receptors in the rat adrenal gland. *Cell and Tissue Research*, **1999**, 298, 449-456	4.2	25
292	Characterization and autoradiographic localization of [3H] alpha, beta-methylene adenosine 5Ptriphosphate binding sites in human urinary bladder. *British Journal of Urology*, **1995**, 76, 297-302		25
291	Sympathetic and nonsympathetic neuropeptide Y-containing nerves in the rat myocardium and coronary arteries. *Circulation Research*, **1990**, 66, 1602-9	15.7	25
290	Sensory-motor neuromodulation of sympathetic vasoconstriction in the rabbit central ear artery. *European Journal of Pharmacology*, **1990**, 187, 171-82	5.3	25
289	P2X7 receptors and Fyn kinase mediate ATP-induced oligodendrocyte progenitor cell migration. *Purinergic Signalling*, **2015**, 11, 361-9	3.8	24
288	Unlocking the Potential of Purinergic Signaling in Transplantation. *American Journal of Transplantation*, **2016**, 16, 2781-2794	8.7	24
287	Myocardial metabolism in heart failure: Purinergic signalling and other metabolic concepts. *Pharmacology & Therapeutics*, **2019**, 194, 132-144	13.9	24
286	Overview of P2 receptors: Possible functions in immune cells. *Drug Development Research*, **2001**, 53, 53-59	5.1	24

285	Interacting roles of nitric oxide and ATP in the pulmonary circulation of the rat. *British Journal of Pharmacology*, **1995**, 114, 846-50	8.6	24
284	Local control of blood pressure by purines. *Journal of Vascular Research*, **1987**, 24, 156-60	1.9	24
283	Reversal of nerve damage in streptozotocin-diabetic rats by acute application of insulin in vitro. *Clinical Science*, **1988**, 75, 629-35	6.5	24
282	An investigation of the identity of the transmitter substance released by non-adrenergic, non-cholinergic excitatory nerves supplying the small intestine of some lower vertebrates. *Comparative and General Pharmacology*, **1973**, 4, 53-60		24
281	P2X1 receptors are closely associated with connexin 43 in human ventricular myocardium. *International Journal of Cardiology*, **2005**, 98, 291-7	3.2	23
280	Introduction: ATP and Its Metabolites as Potent Extracellular Agents. *Current Topics in Membranes*, **2003**, 54, 1-27	2.2	23
279	Expression of P2X receptors in rat choroid plexus. *NeuroReport*, **2005**, 16, 903-7	1.7	23
278	Effect on urinary bladder function and arterial blood pressure of the activation of putative purine receptors in brainstem areas. *Autonomic Neuroscience: Basic and Clinical*, **2001**, 88, 6-15	2.4	23
277	Endothelium of human umbilical blood vessels: ultrastructural immunolocalization of neuropeptides. *Journal of Vascular Research*, **1993**, 30, 348-55	1.9	23
276	Effects of nitric oxide synthase inhibitors, L-NG-nitroarginine and L-NG-nitroarginine methyl ester, on responses to vasodilators of the guinea-pig coronary vasculature. *British Journal of Pharmacology*, **1992**, 107, 604-9	8.6	23
275	Targeting the visceral purinergic system for pain control. *Current Opinion in Pharmacology*, **2012**, 12, 80-6	5.1	22
274	A neuromodulatory role for neuronal nitric oxide in the rabbit renal artery. *British Journal of Pharmacology*, **1997**, 121, 213-20	8.6	22
273	Blood vessels in liver metastases from both sarcoma and carcinoma lack perivascular innervation and smooth muscle cells. *Clinical and Experimental Metastasis*, **1997**, 15, 484-98	4.7	22
272	Antagonism of ATP responses at P2X receptor subtypes by the pH indicator dye, Phenol red. *British Journal of Pharmacology*, **2005**, 145, 313-22	8.6	22
271	Ultrastructural localisation of ATP-gated P2X2 receptor immunoreactivity in vascular endothelial cells in rat brain. *Endothelium: Journal of Endothelial Cell Research*, **2000**, 7, 93-8		22
270	The effects of cyclophosphamide on neurotransmission in the urinary bladder of Suncus murinus, the house musk shrew. *Journal of the Autonomic Nervous System*, **2000**, 80, 130-6		22
269	Comparative Physiology of the Vertebrate Autonomic Nervous System. I. Innervation of the Urinary Bladder of the Toad (Bufo Marinus). *Journal of Experimental Biology*, **1963**, 40, 403-420	3	22
268	Vasoactive intestinal polypeptide-like immunoreactive nerves in diabetic penis. A comparison between streptozotocin-treated rats and man. *Diabetes*, **1983**, 32, 1075-1077	0.9	22

267	A role for calcineurin in the desensitization of the P2X3 receptor. *NeuroReport*, **1997**, 8, 1099-102	1.7	21
266	Vasoconstrictor responses via P2X-receptors are selectively antagonized by NF023 in rabbit isolated aorta and saphenous artery. *British Journal of Pharmacology*, **1997**, 120, 954-60	8.6	21
265	Changes in expression of P2X7 receptors in NOD mouse pancreas during the development of diabetes. *Autoimmunity*, **2007**, 40, 108-16	3	21
264	Changes in purinergic signalling in developing and ageing rat tail artery: importance for temperature control. *Neuropharmacology*, **2006**, 50, 191-208	5.5	21
263	Temperature dependency of P2 receptor-mediated responses. *European Journal of Pharmacology*, **2002**, 456, 107-14	5.3	21
262	The extracellular ATP receptor, cP2Y(1), inhibits cartilage formation in micromass cultures of chick limb mesenchyme. *Developmental Dynamics*, **2001**, 222, 494-505	2.9	21
261	Nitric oxide and human umbilical vessels: pharmacological and immunohistochemical studies. *Placenta*, **1995**, 16, 277-88	3.4	21
260	Ultrastructural Localization of Nitric Oxide Synthase in Intima of Rabbit Aorta. *Endothelium: Journal of Endothelial Cell Research*, **1993**, 1, 23-29		21
259	Urinary bladder intramural neurones: an electrophysiological study utilizing a tissue culture preparation. *Brain Research*, **1987**, 403, 267-78	3.7	21
258	ATP-gated P2X receptors in health and disease. *Frontiers in Cellular Neuroscience*, **2014**, 8, 204	6.1	20
257	ATP causes postjunctional potentiation of noradrenergic contractions in the portal vein of guinea-pig and rat. *Journal of Pharmacy and Pharmacology*, **1986**, 38, 307-9	4.8	20
256	Role of ATP and related purines in inhibitory neurotransmission to the pig urinary bladder neck. *British Journal of Pharmacology*, **2009**, 157, 1463-73	8.6	20
255	Impairment of the splenic immune system in P2X(2)/P2X(3) knockout mice. *Immunobiology*, **2005**, 209, 661-8	3.4	20
254	Some effects of purines on neurones of guinea-pig superior cervical ganglia. *General Pharmacology*, **1994**, 25, 143-8		20
253	Transplantation of the postnatal rat myenteric plexus into the adult rat corpus striatum: an electron microscopic study. *Experimental Neurology*, **1994**, 129, 120-9	5.7	20
252	Perinatal development of quinacrine-positive neurons in the rabbit gastrointestinal tract. *Journal of the Autonomic Nervous System*, **1981**, 4, 217-30		20
251	The non-adrenergic non-cholinergic nervous system. *Archives Internationales De Pharmacodynamie Et De Th□apie*, **1986**, 280, 1-15		20
250	Comparative Physiology of the Vertebrate Autonomic Nervous System. *Journal of Experimental Biology*, **1963**, 40, 421-436	3	20

249	Up-regulation of P2X7 receptors mediating proliferation of Schwann cells after sciatic nerve injury. *Purinergic Signalling*, **2015**, 11, 203-13	3.8	19
248	Progressive loss of perivascular nerves adjacent to colorectal cancer. *European Journal of Surgical Oncology*, **2000**, 26, 588-93	3.6	19
247	Responses of the aorta of the garter snake (Thamnophis sirtalis parietalis) to purines. *British Journal of Pharmacology*, **1995**, 114, 41-8	8.6	19
246	ATP release from the isolated perfused guinea pig heart in response to increased flow. *Journal of Vascular Research*, **1996**, 33, 1-4	1.9	19
245	Noradrenergic-nitrergic interactions in the rat anococcygeus muscle: evidence for postjunctional modulation by nitric oxide. *British Journal of Pharmacology*, **1994**, 112, 403-10	8.6	19
244	Ganglia within the gut, heart, urinary bladder, and airways: studies in tissue culture. *International Review of Cytology*, **1992**, 136, 93-144		19
243	Use of reserpine and 6-hydroxydopamine supports evidence for purinergic cotransmission in the rabbit ear artery. *European Journal of Pharmacology*, **1988**, 155, 271-7	5.3	19
242	Purinergic Signalling and Endothelium. *Current Vascular Pharmacology*, **2016**, 14, 130-45	3.3	19
241	Oxytocin is expressed by both intrinsic sensory and secretomotor neurons in the enteric nervous system of guinea pig. *Cell and Tissue Research*, **2011**, 344, 227-37	4.2	18
240	Alterations in purinoceptor expression in human long saphenous vein during varicose disease. *European Journal of Vascular and Endovascular Surgery*, **2007**, 33, 239-50	2.3	18
239	Abnormalities in neuromuscular junction structure and skeletal muscle function in mice lacking the P2X2 nucleotide receptor. *Neuroscience*, **2007**, 148, 700-11	3.9	18
238	Expression of P2X receptors on immune cells in the rat liver during postnatal development. *Histochemistry and Cell Biology*, **2006**, 126, 453-63	2.4	18
237	Mechanisms underlying postjunctional synergism between responses of the vas deferens to noradrenaline and ATP. *European Journal of Pharmacology*, **2004**, 498, 241-8	5.3	18
236	Unusual absence of endothelium-dependent or -independent vasodilatation to purines or pyrimidines in the rat renal artery. *Kidney International*, **2003**, 64, 1389-97	9.9	18
235	The effects of purine compounds on the isolated aorta of the frog Rana temporaria. *British Journal of Pharmacology*, **1996**, 117, 873-8	8.6	18
234	Recovery after dietary vitamin E supplementation of impaired endothelial function in vitamin E-deficient rats. *British Journal of Pharmacology*, **1994**, 112, 515-8	8.6	18
233	Regulation of voltage-dependent excitatory responses to alpha,beta-methylene ATP, ATP and non-adrenergic nerve stimulation by dihydropyridines in the guinea-pig vas deferens. *Neuroscience*, **1988**, 27, 317-32	3.9	18
232	Ultrastructural identification of VIP-containing nerve fibres in the myenteric plexus of the rat ileum. *Journal of Neurocytology*, **1985**, 14, 327-35		18

231	PACPX--a substituted xanthine--antagonizes both the A1 and A2 subclasses of the P1-purinoceptor: antagonism of the A2 subclass is competitive but antagonism of the A1 subclass is not. *British Journal of Pharmacology*, **1985**, 85, 291-6	8.6	18
230	Inhibition of P2X7 receptors improves outcomes after traumatic brain injury in rats. *Purinergic Signalling*, **2017**, 13, 529-544	3.8	17
229	Purinergic drug targets for gastrointestinal disorders. *Current Opinion in Pharmacology*, **2017**, 37, 131-144	5.1	17
228	Astroglial P2X7 receptor current density increased following long-term exposure to rotenone. *Purinergic Signalling*, **2011**, 7, 65-72	3.8	17
227	Electroconvulsive therapy: a novel hypothesis for the involvement of purinergic signalling. *Purinergic Signalling*, **2011**, 7, 447-52	3.8	17
226	Changing P2X receptor localization on maturing sperm in the epididymides of mice, hamsters, rats, and humans: a preliminary study. *Fertility and Sterility*, **2010**, 93, 1415-20	4.8	17
225	ATP derived from astrocytes modulates memory in the chick. *Neuron Glia Biology*, **2011**, 7, 177-86		17
224	In oculo transplants of myometrium from postpartum guinea pigs fail to support sympathetic reinnervation. *Journal of Anatomy*, **1998**, 193 (Pt 4), 509-17	2.9	17
223	Purine- and pyrimidine-induced responses and P2Y receptor characterization in the hamster proximal urethra. *British Journal of Pharmacology*, **2005**, 144, 510-8	8.6	17
222	Actions of a Series of PPADS Analogs at P2X and P2X Receptors. *Drug Development Research*, **2001**, 53, 281-291	5.1	17
221	Rat chromaffin cells lack P2X receptors while those of the guinea-pig express a P2X receptor with novel pharmacology. *British Journal of Pharmacology*, **1999**, 128, 61-8	8.6	17
220	Molecular recognition in P2 receptors: ligand development aided by molecular modeling and mutagenesis. *Progress in Brain Research*, **1999**, 120, 119-32	2.9	17
219	Receptor nomenclature. *Drug Development Research*, **1996**, 39, 461-466	5.1	17
218	Effects of pyrimidines on the guinea-pig coronary vasculature. *British Journal of Pharmacology*, **1993**, 110, 1091-7	8.6	17
217	Differential effects of ATP- and 2-methylthioATP-induced relaxation in guinea pig coronary vasculature. *Journal of Cardiovascular Pharmacology*, **1994**, 23, 757-64	3.1	17
216	An electrophysiological study of developmental changes in the innervation of the guinea-pig taenia coli. *Pflugers Archiv European Journal of Physiology*, **1993**, 423, 427-33	4.6	17
215	The effect of ATP analogues on the spontaneous electrical and mechanical activity of rat portal vein longitudinal muscle. *European Journal of Pharmacology*, **1987**, 138, 319-25	5.3	17
214	Adrenergic, but not cholinergic or purinergic, responses are potentiated in the cecum of diabetic rats. *Gastroenterology*, **1988**, 94, 1357-67	13.3	17

213	Purinergic Signalling in Development **2001**, 89-127		17
212	Purinergic Signaling and Related Biomarkers in Depression. *Brain Sciences*, **2020**, 10,	3.4	16
211	Purinergic Signalling in the Gut. *Advances in Experimental Medicine and Biology*, **2016**, 891, 91-112	3.6	16
210	Sympathetic nerve varicosities in close apposition to basolateral membranes of collecting duct epithelial cells of rat kidney. *Nephron Physiology*, **2009**, 113, p15-21		16
209	Estrogen altered visceromotor reflex and P2X(3) mRNA expression in a rat model of colitis. *Steroids* , **2009**, 74, 956-62	2.8	16
208	Developmental changes in heteromeric P2X(2/3) receptor expression in rat sympathetic ganglion neurons. *Developmental Dynamics*, **2005**, 234, 505-11	2.9	16
207	Ultrastructural localization of nitric oxide synthase and endothelin in the renal and mesenteric arteries of the golden hamster: differences during and after arousal from hibernation. *Endothelium: Journal of Endothelial Cell Research*, **1999**, 6, 197-207		16
206	Effects of divalent cations and La3+ on contractility and ecto-ATPase activity in the guinea-pig urinary bladder. *British Journal of Pharmacology*, **1995**, 114, 632-9	8.6	16
205	Changes in vasoconstrictor and vasodilator responses of the basilar artery during maturation in the Watanabe heritable hyperlipidemic rabbit differ from those in the New Zealand White rabbit. *Arteriosclerosis and Thrombosis: A Journal of Vascular Biology*, **1991**, 11, 1147-55		16
204	In situ hybridization of atrial natriuretic peptide mRNA in the endothelial cells of human umbilical vessels. *Histochemistry*, **1993**, 100, 277-83		16
203	Intramural ganglia in the human urethra. *Journal of Urology*, **1988**, 140, 183-7	2.5	16
202	Axon retraction following guanethidine treatment. Studies of sympathetic neurons in vivo. *Cell and Tissue Research*, **1973**, 146, 439-51	4.2	16
201	The Concept of Cotransmission: Focus on ATP as a Cotransmitter and its Significance in Health and Disease. *European Review*, **2014**, 22, 1-17	0.3	15
200	Inhibitory effect of estrogen receptor beta on P2X3 receptors during inflammation in rats. *Purinergic Signalling*, **2017**, 13, 105-117	3.8	15
199	Transcriptional profile of GTP-mediated differentiation of C2C12 skeletal muscle cells. *Purinergic Signalling*, **2012**, 8, 207-21	3.8	15
198	Pre- and postjunctional effects of diadenosine polyphosphates in the guinea-pig vas deferens. *Journal of Pharmacy and Pharmacology*, **1995**, 47, 926-31	4.8	15
197	Differential expression of P2X receptors on neurons from different parasympathetic ganglia. *Neuropharmacology*, **2005**, 48, 766-77	5.5	15
196	Term-dependency of P2 receptor-mediated contractile responses of isolated human pregnant uterus. *European Journal of Obstetrics, Gynecology and Reproductive Biology*, **2006**, 129, 128-34	2.4	15

195	Adenosine 5Ptriphosphate and its relationship with other mediators that activate pelvic nerve afferent neurons in the rat colorectum. *Purinergic Signalling*, **2006**, 2, 517-26	3.8	15
194	The influence of hypothermia on P2 receptor-mediated responses of frog skeletal muscle. *European Journal of Pharmacology*, **2005**, 509, 187-93	5.3	15
193	Purinoceptors in the regulation of cell growth and differentiation. *Drug Development Research*, **1996**, 39, 407-412	5.1	15
192	Responses of rabbit basilar arteries to vasoconstrictor and vasodilator agents: the effects of atherosclerosis, age and sex. *Journal of Vascular Research*, **1994**, 31, 106-13	1.9	15
191	Implantation of the myenteric plexus into the corpus striatum of adult rats: survival of the neurons and glia and interactions with host brain. *Restorative Neurology and Neuroscience*, **1992**, 4, 311-21	2.8	15
190	DISTRIBUTION OF P2X RECEPTORS IN THE URINARY BLADDER AND THE URETER OF THE RAT. *Journal of Urology*, **2000**, 2002-2007	2.5	15
189	Sympathetic innervation of the kidney in health and disease: Emphasis on the role of purinergic cotransmission. *Autonomic Neuroscience: Basic and Clinical*, **2017**, 204, 4-16	2.4	14
188	DT-0111: a novel drug-candidate for the treatment of COPD and chronic cough. *Therapeutic Advances in Respiratory Disease*, **2019**, 13, 1753466619877960	4.9	14
187	Expression of P2X(2) and P2X (3) receptors in the rat carotid sinus, aortic arch, vena cava, and heart, as well as petrosal and nodose ganglia. *Purinergic Signalling*, **2012**, 8, 15-22	3.8	14
186	Regional expression of P2Y(4) receptors in the rat central nervous system. *Purinergic Signalling*, **2011**, 7, 469-88	3.8	14
185	Different effects of ATP on the contractile activity of mice diaphragmatic and skeletal muscles. *Neurochemistry International*, **2006**, 49, 756-63	4.4	14
184	Age-related changes in the localization of P2X (nucleotide) receptors in the rat adrenal gland. *International Journal of Developmental Neuroscience*, **2000**, 18, 515-20	2.7	14
183	Identification of P1 and P2 purinoceptors in the aorta of the lizard (Agama sp.). *Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology*, **2001**, 128, 413-23	3.2	14
182	Interactions between sensory perivascular nerves and the endothelium in brain microvessels. *International Journal of Microcirculation, Clinical and Experimental*, **1995**, 15, 1-9		14
181	Enhanced sympathetic neurotransmission in the tail artery of 1,3-dipropyl-8-sulphophenylxanthine (DPSPX)-treated rats. *British Journal of Pharmacology*, **1995**, 116, 1918-22	8.6	14
180	The effect of suramin on vasodilator responses to ATP and 2-methylthio-ATP in the Sprague-Dawley rat coronary vasculature. *European Journal of Pharmacology*, **1994**, 251, 299-302	5.3	14
179	Effect of changes in rate of vascular perfusion on release of substances into the effluent from the brain of the rabbit. *Brain Research*, **1993**, 630, 88-94	3.7	14
178	Purinergic and glutamatergic receptors on astroglia. *Advances in Neurobiology*, **2014**, 11, 55-79	2.1	13

177	A functional study of purinergic signalling in the normal and pathological rabbit corpus cavernosum. *BJU International*, **2008**, 101, 1043-7	5.6	13
176	Presence of the P2X(7) purinergic receptor on immune cells that invade the rat endometrium during oestrus. *Journal of Reproductive Immunology*, **2005**, 66, 127-40	4.2	13
175	Diadenosine polyphosphate-activated inward and outward currents in follicular oocytes of Xenopus laevis. *Life Sciences*, **1996**, 59, PL179-84	6.8	13
174	The electrophysiologic and neurochemical properties of paratracheal neurones in situ and in dissociated cell culture. *The American Review of Respiratory Disease*, **1987**, 136, S23-6		13
173	Vasoactive intestinal polypeptide (VIP)-immunoreactive nerve fibres associated with the striated muscle of the human external urethral sphincter. *Lancet, The*, **1985**, 1, 47-8	40	13
172	Distribution of P2X receptor subtypes in the rat female reproductive tract at late pro-oestrus/early oestrus. *Cell and Tissue Research*, **2000**, 299, 105-13	4.2	13
171	Receptors for Purines and Pyrimidines **2012**, 119-244		12
170	P2X receptors are expressed on neurons containing luteinizing hormone-releasing hormone in the mouse hypothalamus. *Neuroscience Letters*, **2009**, 458, 32-6	3.3	12
169	Age-related changes in purinergic and adrenergic components of sympathetic neurotransmission in guinea-pig seminal vesicles. *British Journal of Pharmacology*, **1997**, 122, 1411-6	8.6	12
168	Steady-state binding of [3H]ATP to rat liver plasma membranes and competition by various purinergic agonists and antagonists. *Biochimica Et Biophysica Acta - Biomembranes*, **1998**, 1373, 227-36	3.8	12
167	Expression and localization of P2 nucleotide receptor subtypes during development of the lateral ventricular choroid plexus of the rat. *European Journal of Neuroscience*, **2007**, 25, 3319-31	3.5	12
166	Expression of P2X and P2Y receptors in the intramural parasympathetic ganglia of the cat urinary bladder. *American Journal of Physiology - Renal Physiology*, **2006**, 290, F1143-52	4.3	12
165	Changes in P2Y2 receptor localization on adrenaline- and noradrenaline-containing chromaffin cells in the rat adrenal gland during development and aging. *International Journal of Developmental Neuroscience*, **2005**, 23, 567-73	2.7	12
164	Purinergic signalling to rat ovarian smooth muscle: changes in P2X receptor expression during pregnancy. *Cells Tissues Organs*, **2004**, 178, 33-47	2.1	12
163	Steady-state binding of adenine nucleotides ATP, ADP and AMP to rat liver and adipose plasma membranes. *Journal of Receptor and Signal Transduction Research*, **1999**, 19, 437-48	2.6	12
162	Developmental changes in sympathetic contraction of the circular muscle layer in the guinea-pig vas deferens. *European Journal of Pharmacology*, **1996**, 318, 411-7	5.3	12
161	Triphosphate, the key structure of the ATP molecule responsible for interaction with P2X-purinoceptors. *General Pharmacology*, **1993**, 24, 637-40		12
160	Purinergic signalling in neuroregeneration. *Neural Regeneration Research*, **2015**, 10, 1919	4.5	12

159	Introduction: Changing Face of Autonomic and Sensory Nerves in the Circulation **1993**, 1-22		12
158	Blocking P2X receptors can inhibit the injury-induced proliferation of olfactory epithelium progenitor cells in adult mouse. *International Journal of Pediatric Otorhinolaryngology*, **2010**, 74, 747-51	1.7	11
157	Management of erectile function by penile purinergic p2 receptors in the diabetic rat. *Journal of Urology*, **2009**, 181, 2375-82	2.5	11
156	Enhanced vasoconstrictor responses in renal and femoral arteries of the golden hamster during hibernation. *Journal of Physiology*, **1998**, 512 (Pt 3), 927-38	3.9	11
155	Purinoceptor expression on keratinocytes reflects their function on the epidermis during chronic venous insufficiency. *Archives of Dermatological Research*, **2006**, 298, 301-7	3.3	11
154	Localization of P2X receptors in the guinea pig adrenal gland. *Cells Tissues Organs*, **2000**, 167, 297-302	2.1	11
153	The effects of hibernation on the myenteric plexus of the golden hamster small and large intestine. *Cell and Tissue Research*, **1999**, 296, 479-87	4.2	11
152	Long-term guanethidine sympathectomy suppresses flow-induced release of ATP and endothelin from endothelial cells isolated from adult rat aorta. *Journal of Vascular Research*, **1996**, 33, 139-45	1.9	11
151	Effects of noradrenaline on rat paratracheal neurones and localization of an endogenous source of noradrenaline. *British Journal of Pharmacology*, **1992**, 107, 471-5	8.6	11
150	Mechanisms of Interaction of Peptide and Nonpeptide Vascular Neurotransmitter Systems. *Journal of Cardiovascular Pharmacology*, **1987**, 10, S74-S81	3.1	11
149	An unusual excitatory action of adenosine on the ventricular muscle of the South African clawed toad (Xenopus laevis). *European Journal of Pharmacology*, **1983**, 89, 251-8	5.3	11
148	Purinergic cotransmission. *F1000 Biology Reports*, **2009**, 1, 46		11
147	Introduction to the Special Issue on Purinergic Receptors. *Advances in Experimental Medicine and Biology*, **2017**, 1051, 1-6	3.6	10
146	A comparative study of the effect of 17β-estradiol and estriol on peripheral pain behavior in rats. *Steroids*, **2012**, 77, 241-9	2.8	10
145	Interaction of hydrocortisone with ATP and adenosine on nerve-mediated contractions of frog skeletal muscle. *European Journal of Pharmacology*, **2009**, 607, 54-9	5.3	10
144	P2X(2), P2X(2-2) and P2X(5) receptor subunit expression and function in rat thoracolumbar sympathetic neurons. *Journal of Neurochemistry*, **2001**, 79, 997-1003	6	10
143	Electron-immunocytochemical studies of perivascular nerves of mesenteric and renal arteries of golden hamsters during and after arousal from hibernation. *Journal of Anatomy*, **1999**, 195 (Pt 1), 121-30	2.9	10
142	Presence of constitutive endothelial nitric oxide synthase immunoreactivity in urothelial cells of hamster proximal urethra. *European Journal of Pharmacology*, **1999**, 367, 85-9	5.3	10

141	Augmented sensory-motor vasodilatation of the rat mesenteric arterial bed after chronic infusion of the P1-purinoceptor antagonist, DPSPX. *British Journal of Pharmacology*, **1996**, 118, 1675-80	8.6	10
140	P2Y purinoceptors in gastric gland plasma membranes. *European Journal of Pharmacology*, **1996**, 312, 209-14	5.3	10
139	Characterization and autoradiographic localization of [3H] alpha,beta-methylene ATP binding sites in cat urinary bladder. *General Pharmacology*, **1996**, 27, 509-12		10
138	Abnormalities of responses to autonomic stimulation in the mouse urinary bladder associated with Semliki Forest virus-induced demyelination. *Journal of Urology*, **1989**, 142, 850-4	2.5	10
137	Properties of Intramural Neurones Cultured from the Heart and Bladder **1987**, 323-328		10
136	Plasticity in expression of co-transmitters and autonomic nerves in aging and disease. *Advances in Experimental Medicine and Biology*, **1991**, 296, 291-301	3.6	10
135	Capsaicin-sensitive sensory-motor neurotransmission in the peripheral control of cardiovascular function. *Cardiovascular Research*, **1996**, 31, 467-79	9.9	10
134	Intracellular expression of purinoceptors. *Purinergic Signalling*, **2015**, 11, 275-6	3.8	9
133	Mechanisms of ATP Release and Inactivation **2012**, 79-118		9
132	Potentiation of uterine effects of prostaglandin F2{alpha} by adenosine 5Ptriphosphate. *Obstetrics and Gynecology*, **2005**, 105, 1429-36	4.9	9
131	Endothelin in human cerebrovascular nerves. *Clinical Science*, **2002**, 103 Suppl 48, 404S-407S	6.5	9
130	Contractility of urinary bladder and vas deferens after sensory denervation by capsaicin treatment of newborn rats. *British Journal of Pharmacology*, **1995**, 114, 166-70	8.6	9
129	Increase in nitric oxide synthase and NADPH-diaphorase in the adrenal gland of streptozotocin-diabetic Wistar rats and its prevention by ganglioside. *International Journal of Developmental Neuroscience*, **1996**, 14, 111-23	2.7	9
128	Pre- and postjunctional actions of purine and xanthine compounds in the guinea-pig caecum circular muscle. *British Journal of Pharmacology*, **1988**, 95, 653-63	8.6	9
127	Morphological changes produced by drugs acting on the autonomic nervous system. *Pharmacology & Therapeutics*, **1979**, 5, 49-53		9
126	Purinergic receptors in the heart. *Circulation Research*, **1980**, 46, I175-82	15.7	9
125	Cell Surfaces and Fibre Relationships in Sympathetic Ganglion Cultures: A Scanning Electron-Microscopic Study. *Journal of Cell Science*, **1974**, 14, 657-669	5.3	9
124	Purinergic signaling in the gastrointestinal tract. *World Journal of Gastrointestinal Pathophysiology*, **2011**, 2, 31-4	3.2	9

123	Innervation of bladder and bowel. *Novartis Foundation Symposium*, **1990**, 151, 2-18; discussion 18-26		9
122	Distribution of P2X receptors in the rat adrenal gland. *Cell and Tissue Research*, **1999**, 298, 449-56	4.2	9
121	Preface to special issue (Commercial Developments in Purinergic Signalling). *Purinergic Signalling*, **2012**, 8, 1	3.8	8
120	Developmental expression of P2X5 receptors in the mouse prenatal central and peripheral nervous systems. *Purinergic Signalling*, **2013**, 9, 239-48	3.8	8
119	Purinergic signaling. *Environmental Sciences Europe*, **2012**, 1, 116-125	5	8
118	Progesterone rapidly attenuates ATP-evoked transient currents in cultured rat dorsal root ganglion neurons. *Pharmacology*, **2011**, 87, 36-44	2.3	8
117	Evidence against VIP or substance P being the transmitter in non-cholinergic excitatory nerves supplying the guinea-pig bladder. *Journal of Pharmacy and Pharmacology*, **1985**, 37, 432-4	4.8	8
116	Early expression of adenosine 5Ptriphosphate-gated P2X7 receptors in the developing rat pancreas. *Pancreas*, **2007**, 35, 164-8	2.6	8
115	Northern Ring Conformation of Methanocarba-Adenosine 5PTriphosphate Required for Activation of P2X Receptors. *Drug Development Research*, **2004**, 61, 227-232	5.1	8
114	Identification of P2X receptors in cultured mouse and rat parasympathetic otic ganglion neurones including P2X knockout studies. *Neuropharmacology*, **2004**, 46, 1039-48	5.5	8
113	Characterization and expression of ATP P2X4 receptor from embryonic chick skeletal muscle. *Drug Development Research*, **2001**, 53, 22-28	5.1	8
112	Cytokines suppress the shear stress-stimulated release of vasoactive peptides from human endothelial cells. *Peptides*, **1995**, 16, 1433-8	3.8	8
111	Effects of vitamin E deficiency on vasomotor activity and ultrastructural organisation of rat thoracic aorta. *British Journal of Pharmacology*, **1995**, 115, 415-20	8.6	8
110	Electron-microscopic immunolabelling of vasoactive substances in human umbilical endothelial cells and their actions in early and late pregnancy. *Cell and Tissue Research*, **1996**, 284, 167-75	4.2	8
109	Neuromuscular transmission in the gastrointestinal tract **1989**, 435-464		8
108	A special type of small granule-containing cell in the abdominal para aortic region of the frog. *Journal of Neurocytology*, **1976**, 5, 465-78		8
107	Mechanisms of interaction of peptide and nonpeptide vascular neurotransmitter systems. *Journal of Cardiovascular Pharmacology*, **1987**, 10 Suppl 12, S74-81	3.1	8
106	Pharmacological and molecular characterization of functional P2 receptors in rat embryonic cardiomyocytes. *Purinergic Signalling*, **2015**, 11, 127-38	3.8	7

105	Expression of P2X5 receptors in the rat, cat, mouse and guinea pig dorsal root ganglion. *Histochemistry and Cell Biology*, **2013**, 139, 549-57	2.4	7
104	P2X receptors in the gut. *Environmental Sciences Europe*, **2012**, 1, 269-279	5	7
103	Expression of P2Y receptors in the rat anterior pituitary. *Purinergic Signalling*, **2011**, 7, 207-19	3.8	7
102	Neurogenic and non-neurogenic responses in the urinary bladder of hibernating hamster. *British Journal of Pharmacology*, **1998**, 123, 1281-7	8.6	7
101	Purinergic receptors are part of a signalling system for proliferation and differentiation in distinct cell lineages in human anagen hair follicles. *Purinergic Signalling*, **2008**, 4, 331-8	3.8	7
100	P2X(5) and P2X(7) receptors in human warts and CIN-612 organotypic raft cultures of human papillomavirus infected keratinocytes. *Purinergic Signalling*, **2006**, 2, 509-15	3.8	7
99	Augmented Flow-Induced Endothelin Release from the Rat Mesenteric Arterial Bed after Long-Term Sympathectomy. *Endothelium: Journal of Endothelial Cell Research*, **1995**, 3, 67-73		7
98	Vasoconstrictor responsiveness of the rat mesenteric arterial bed in cirrhosis. *British Journal of Pharmacology*, **1996**, 118, 435-41	8.6	7
97	Neurite outgrowth of striatal neurons in vitro: involvement of purines in the growth-promoting effect of myenteric plexus explants. *International Journal of Developmental Neuroscience*, **1996**, 14, 439-451	2.7	7
96	Do we need [illegible]receptors?. *Trends in Pharmacological Sciences*, **1984**, 5, 264-265	13.2	7
95	Cholinergic and Purinergic Regulation of Blood Vessels **1980**, 567-612		7
94	A dividing granule-containing cell in the pelvic ganglion of the guinea-pig. *Cell and Tissue Research*, **1978**, 192, 187-92	4.2	7
93	Trophic roles of P2 purinoceptors in central nervous system astroglial cells. *Novartis Foundation Symposium*, **1996**, 198, 142-7; discussion 147-8		7
92	Co-localization of Pirt protein and P2X2 receptors in the mouse enteric nervous system. *Purinergic Signalling*, **2016**, 12, 489-96	3.8	7
91	History of Extracellular Nucleotides and Their Receptors **1998**, 3-40		7
90	Purinergic signalling: what is missing and needed next? The use of transgenic mice, crystallographic analysis and MicroRNA. *CNS and Neurological Disorders - Drug Targets*, **2012**, 11, 751-67	2.6	6
89	Expression of P2Y(6) receptors in the developing mouse skeletal muscle and after injury and repair. *Journal of Anatomy*, **2011**, 218, 643-51	2.9	6
88	Expression of beta-adrenergic receptors in the rat uterus: effects of puberty and oestrogen treatment during prepubertal development. *International Journal of Developmental Neuroscience*, **1998**, 16, 29-39	2.7	6

87	UCB Pharma research day-25 October 2007 Glia-neuron interactions and purinergic receptors in neurological disorders. *Purinergic Signalling*, **2008**, 4, 79-84	3.8	6
86	Changes in expression of P2X1 receptors and connexin 43 in the rat myometrium during pregnancy. *Fertility and Sterility*, **2007**, 88, 1174-9	4.8	6
85	P2X2 and P2X3 receptor expression in the gallbladder of the guinea pig. *Autonomic Neuroscience: Basic and Clinical*, **2004**, 111, 89-96	2.4	6
84	Chronic ethanol consumption affects cholinoceptor- and purinoceptor-mediated contractions of the isolated rat bladder. *Alcohol*, **1995**, 12, 183-8	2.7	6
83	NADPH-diaphorase-containing enteric neurones survive for a year in the adult rat striatum. *NeuroReport*, **1996**, 7, 958-60	1.7	6
82	Dual Control by Nerves and Endothelial Cells of Arterial Blood Flow in Atherosclerosis **1991**, 285-292		6
81	Evolution of P2X receptors. *Environmental Sciences Europe*, **2012**, 1, 188-200	5	5
80	Sodium nitroprusside enhances contractions of the guinea-pig isolated vas deferens. *Journal of Pharmacy and Pharmacology*, **1998**, 50, 205-9	4.8	5
79	Introductory overview of purinergic signalling. *Frontiers in Bioscience - Elite*, **2009**, E3, 896	1.6	5
78	Intrastriatal grafts of rat colonic smooth muscle lacking myenteric ganglia stimulate axonal sprouting and regeneration. *Journal of Anatomy*, **1998**, 192 (Pt 1), 25-35	2.9	5
77	Increased 5-HT(3)-mediated signalling in pelvic afferent neurons from mice deficient in P2X(2) and/or P2X (3) receptor subunits. *Purinergic Signalling*, **2006**, 2, 481-9	3.8	5
76	Varicose disease affects the P2 receptor-mediated responses of human greater saphenous vein. *Vascular Pharmacology*, **2004**, 42, 17-21	5.9	5
75	Ultrastructural identification of P2Y2 receptor mRNA in the rat thymus. *Cells Tissues Organs*, **2002**, 172, 255-64	2.1	5
74	Effects of short- and long-term sympathectomy on vasoconstrictor responses of the rat mesenteric arterial bed. *British Journal of Pharmacology*, **1996**, 119, 1347-54	8.6	5
73	Determinants of signal transmission in healthy and diseased autonomic neuromuscular junctions. *Diabetic Medicine*, **1993**, 10 Suppl 2, 64S-69S	3.5	5
72	Effects of vitamin E deficiency on autonomic neuroeffector mechanisms in the rat caecum, vas deferens and urinary bladder. *Journal of Physiology*, **1995**, 487 (Pt 3), 773-86	3.9	5
71	Non-adrenergic neurotransmitters in relation to sympathetic nervous control of the lower urinary tract. *Clinical Science*, **1986**, 70 Suppl 14, 15s-20s		5
70	Perinatal development of adrenergic, cholinergic and non-adrenergic, non-cholinergic nerves and sif cells in the rabbit urinary bladder. *International Journal of Developmental Neuroscience*, **1985**, 3, 89-101	2.7	5

69	P2Y receptors (version 2019.4) in the IUPHAR/BPS Guide to Pharmacology Database. *IUPHAR/BPS Guide To Pharmacology CITE*, **2019**, 2019,	1.7	5
68	Evidence for coexistence of ATP and nitric oxide in non-adrenergic, non-cholinergic (NANC) inhibitory neurones in the rat ileum, colon and anococcygeus muscle **1994**, 278, 197		5
67	The Autonomic Neuroeffector Junction **2004**, 29-33		5
66	Neurite outgrowth of striatal neurons in vitro: involvement of purines in the growth-promoting effect of myenteric plexus explants. *International Journal of Developmental Neuroscience*, **1996**, 14, 439-51	2.7	5
65	P2X receptor-mediated synaptic transmission. *Environmental Sciences Europe*, **2012**, 1, 297-309	5	4
64	Evidence that adenosine triphosphate or a related nucleotide is the transmitter substance released by non-adrenergic inhibitory nerves in the gut. *British Journal of Pharmacology*, **1997**, 120, 334-336	8.6	4
63	Gene delivery to rat enteric neurons using herpes simplex virus-based vectors. *Journal of Molecular Neuroscience*, **1997**, 9, 65-74	3.3	4
62	Reduced sympathetic noradrenergic neurotransmission in the tail artery of Donryu rats fed with high cholesterol-supplemented diet. *British Journal of Pharmacology*, **1998**, 123, 1016-21	8.6	4
61	Purinergic signalling: Therapeutic potential. *Drug Development Research*, **1998**, 45, 86-92	5.1	4
60	P2 receptors: theoretical background for the use in clinical practice. *Bulletin of Experimental Biology and Medicine*, **2002**, 134, 313-7	0.8	4
59	Two distinct P2Y receptors are involved in purine- and pyrimidine-evoked Ca2+ elevation in mammalian brain astrocytic cultures. *Drug Development Research*, **2001**, 52, 122-132	5.1	4
58	Neonatal Sensory Denenration Affects the Expression of Endothelial Peptides in the Adult Rat Pulmonary Artery: More Cells Contain Substance P and Less Contain Endothelin. *Endothelium: Journal of Endothelial Cell Research*, **1996**, 4, 71-76		4
57	Regulation of local blood flow by neurohumoral substances released from perivascular nerves and endothelial cells. *Acta Physiologica Scandinavica Supplementum*, **1988**, 571, 53-9		4
56	Structural and Chemical Organization of the Autonomic Neuroeffector System **2002**, 1-53		4
55	Trophic Factors and the Control of Smooth Muscle Development and Innervation **1994**, 1-39		4
54	Release of vasoactive substances from endothelial cells by shear stress and purinergic mechanosensory transduction		4
53	P2X RECEPTORS AND THEIR ROLE IN FEMALE IDIOPATHIC DETRUSOR INSTABILITY. *Journal of Urology*, **2002**, 157-164	2.5	4
52	Expression of P2X receptors in the rat anterior pituitary. *Purinergic Signalling*, **2020**, 16, 17-28	3.8	4

51	Subunit specificity of polyclonal antisera to the carboxy terminal regions of P2X receptors, P2X1 through P2X7 **1999**, 47, 189		4
50	Novel ATP Agonists Reveal Receptor Heterogeneity Within P2X and P2Y Subtypes **1995**, 149-156		4
49	Expression of P2X1 receptors in somatostatin-containing cells in mouse gastrointestinal tract and pancreatic islets of both mouse and human. *Purinergic Signalling*, **2018**, 14, 285-298	3.8	3
48	Purinergic Signalling in the Central Nervous System **2012**, 433-581		3
47	Cotransmission **2012**, 27-33		3
46	Pharmacological properties of P2 receptors on rat otic parasympathetic ganglion neurons. *Life Sciences*, **2008**, 83, 185-91	6.8	3
45	Effects of alpha,beta-unsaturated sulphones and phosphonium salts on ecto-ATPase activity and contractile responses mediated via P2 chi-purinoceptors. *General Pharmacology*, **1995**, 26, 527-32		3
44	Cotransmitters of catecholamines. *Autonomic and Autacoid Pharmacology*, **1994**, 14, 5-6		3
43	Introduction and History **1975**, 1-3		3
42	Purinergic contraction of the rat vas deferens in L-NAME-induced hypertension: effect of sildenafil. *Asian Journal of Andrology*, **2010**, 12, 415-21	2.8	3
41	Extracellular ATP signaling in equine digital blood vessels. *European Journal of Pharmacology*, **2013**, 702, 242-9	5.3	2
40	Early History of Purinergic Signalling **2012**, 7-66		2
39	Purinergic Neurotransmission and Nucleotide Receptors **2012**, 87-93		2
38	Cotransmission **2009**, 247-254		2
37	The German Research Unit "Neuronal and glial P2 receptors; molecular basis and functional significance". *Purinergic Signalling*, **2010**, 6, 285-7	3.8	2
36	Purinergic Signalling special issue on "Purinergic Signalling in the Inner Ear"; a commentary by Professor Geoffrey Burnstock, Editor-in-Chief. *Purinergic Signalling*, **2010**, 6, 149	3.8	2
35	50 years of passionate commitment. *Cellular and Molecular Life Sciences*, **2004**, 61, 1693-6	10.3	2
34	Identification of a novel P2 receptor associated with cyclooxygenase-2 upregulation and reactive astrogliosis. *Drug Development Research*, **2001**, 53, 148-157	5.1	2

33	Effects of chronic vitamin E deficiency and a high polyunsaturated fatty acid diet on rat mesenteric arterial function. *British Journal of Pharmacology*, **1995**, 116, 3075-81	8.6	2
32	Autonomic neuroeffector mechanisms: recent developments. *Functional Neurology*, **1987**, 2, 427-36	2.2	2
31	ALTERATIONS IN CHOLINERGIC AND PURINERGIC SIGNALING IN A MODEL OF THE OBSTRUCTED BLADDER. *Journal of Urology*, **2001**, 1530-1533	2.5	2
30	Special issue on cell and molecular biology of purinergic signalling: an introduction. *Purinergic Signalling*, **2012**, 8, 341	3.8	1
29	Adenosine Triphosphate (ATP) **2009**, 105-113		1
28	The history of National Purine Clubs and the International Purine Club. *Purinergic Signalling*, **2010**, 6, 283-4	3.8	1
27	Purinergic Neurotransmission **2004**, 60-65		1
26	Modulation of Endothelin Release by Vasoactive Peptides Localised in Human Umbilical Vein Endothelial Cells. *Endothelium: Journal of Endothelial Cell Research*, **1996**, 4, 309-317		1
25	Effect of age on NADPH-diaphorase-containing myenteric neurones of rat ileum and proximal colon **1995**, 279, 379		1
24	Cotransmission? **2014**,		1
23	Current status of P2X receptors: distribution and pathophysiological roles. *Proceedings of the Western Pharmacology Society*, **1999**, 42, 119-21		0
22	Adenosine Triphosphate (ATP) ? **2017**,		
21	Ontogeny of Purinergic Neurotransmission **2012**, 681-707		
20	Purinergic Cotransmission **2012**, 67-77		
19	Sensory Nerves **2012**, 583-625		
18	Omnipresent purinergic signaling: an editorial essay. *Environmental Sciences Europe*, **2012**, 1, 113-115	5	
17	Editorial. *Purinergic Signalling*, **2011**, 7, 167-8	3.8	
16	Editorial. *Purinergic Signalling*, **2009**, 5, 263	3.8	

15	Reinnervation of transplanted vas deferens by cholinergic nerves normally supplying skeletal muscle. *Experimental Neurology*, **2009**, 215, 264-70	5.7
14	Peripheral Nervous System **2012**, 307-432	
13	Localization of ATP P2X Receptors **2001**, 57-74	
12	Ludwig Robert M□ller Memorial Lecture. *Clinical Autonomic Research*, **2000**, 10, 355-355	4.3
11	Characteristics of ecto-ATPase of Xenopus oocytes and the inhibitory actions of suramin on ATP breakdown. *Pflugers Archiv European Journal of Physiology*, **1996**, 431, 993-6	4.6
10	Effect of reserpine treatment and hypophysectomy on the nitric oxide synthase immunoreactivity and NADPH-diaphorase staining in the rat adrenal gland. *The Anatomical Record*, **1996**, 246, 545-8	
9	Solubilisation and molecular characterisation of the P2X purinoceptor. *Biochemical Society Transactions*, **1993**, 21, 200S	5.1
8	Cell Recognition between Mast Cells and Fibroblasts, and between Nerve and Muscle. *Biochemical Society Transactions*, **1978**, 6, 486-486	5.1
7	Purinergic System **2021**, 1336-1342	
6	Summing-Up. *Novartis Foundation Symposium*,322-323	
5	Chairman□s Concluding Remarks. *Novartis Foundation Symposium*,371-373	
4	Evolution of Purinergic Signalling **2012**, 245-305	
3	Autonomic Neuroeffector Junction? **2017**,	
2	Autonomic Neuroeffector Junction **2009**, 993-1001	
1	Special Senses **2012**, 627-679	