Tony L Yaksh

List of Publications by Citations

232 papers	14,744 citations	62 h-index	116 g-index
258 ext. papers	15,942 ext. citations	5.4 avg, IF	6.54 L-index

#	Paper	IF	Citations
232	Chronic catheterization of the spinal subarachnoid space. *Physiology and Behavior*, **1976**, 17, 1031-6	3.5	1991
231	Behavioral and autonomic correlates of the tactile evoked allodynia produced by spinal glycine inhibition: effects of modulatory receptor systems and excitatory amino acid antagonists. *Pain*, **1989**, 37, 111-123	8	519
230	Pharmacology of spinal adrenergic systems which modulate spinal nociceptive processing. *Pharmacology Biochemistry and Behavior*, **1985**, 22, 845-58	3.9	497
229	Upregulation of dorsal root ganglion (alpha)2(delta) calcium channel subunit and its correlation with allodynia in spinal nerve-injured rats. *Journal of Neuroscience*, **2001**, 21, 1868-75	6.6	491
228	Spinal opiate analgesia: characteristics and principles of action. *Pain*, **1981**, 11, 293-346	8	447
227	Activation of p38 mitogen-activated protein kinase in spinal microglia is a critical link in inflammation-induced spinal pain processing. *Journal of Neurochemistry*, **2003**, 86, 1534-44	6	326
226	Spinal nitric oxide synthesis inhibition blocks NMDA-induced thermal hyperalgesia and produces antinociception in the formalin test in rats. *Pain*, **1993**, 54, 291-300	8	312
225	The spinal phospholipase-cyclooxygenase-prostanoid cascade in nociceptive processing. *Annual Review of Pharmacology and Toxicology*, **2002**, 42, 553-83	17.9	255
224	Increased sensitivity of injured and adjacent uninjured rat primary sensory neurons to exogenous tumor necrosis factor-alpha after spinal nerve ligation. *Journal of Neuroscience*, **2003**, 23, 3028-38	6.6	251
223	The acute antihyperalgesic action of nonsteroidal, anti-inflammatory drugs and release of spinal prostaglandin E2 is mediated by the inhibition of constitutive spinal cyclooxygenase-2 (COX-2) but not COX-1. *Journal of Neuroscience*, **2001**, 21, 5847-53	6.6	249
222	Spinal pharmacology of thermal hyperesthesia induced by constriction injury of sciatic nerve. Excitatory amino acid antagonists. *Pain*, **1992**, 49, 121-128	8	234
221	Characterization of variables defining hindpaw withdrawal latency evoked by radiant thermal stimuli. *Journal of Neuroscience Methods*, **1997**, 76, 183-91	3	216
220	Intrathecal minocycline attenuates peripheral inflammation-induced hyperalgesia by inhibiting p38 MAPK in spinal microglia. *European Journal of Neuroscience*, **2005**, 22, 2431-40	3.5	208
219	Polyanalgesic Consensus Conference 2012: recommendations for the management of pain by intrathecal (intraspinal) drug delivery: report of an interdisciplinary expert panel. *Neuromodulation*, **2012**, 15, 436-64; discussion 464-6	3.1	186
218	Effect of continuous intrathecal infusion of omega-conopeptides, N-type calcium-channel blockers, on behavior and antinociception in the formalin and hot-plate tests in rats. *Pain*, **1995**, 60, 83-90	8	176
217	Spinal systems and pain processing: development of novel analgesic drugs with mechanistically defined models. *Trends in Pharmacological Sciences*, **1999**, 20, 329-37	13.2	175
216	Prolonged alleviation of tactile allodynia by intravenous lidocaine in neuropathic rats. *Anesthesiology*, **1995**, 83, 775-85	4.3	167

215	The Polyanalgesic Consensus Conference (PACC): Recommendations on Intrathecal Drug Infusion Systems Best Practices and Guidelines. *Neuromodulation*, **2017**, 20, 96-132	3.1	158
214	Systemic and supraspinal, but not spinal, opiates suppress allodynia in a rat neuropathic pain model. *Neuroscience Letters*, **1995**, 199, 111-4	3.3	155
213	Stereospecific effects of a nonpeptidic NK1 selective antagonist, CP-96,345: antinociception in the absence of motor dysfunction. *Life Sciences*, **1991**, 49, 1955-63	6.8	150
212	The spinal loop dialysis catheter: characterization of use in the unanesthetized rat. *Journal of Neuroscience Methods*, **1995**, 62, 43-53	3	138
211	In vivo evidence for multiple opiate receptors mediating analgesia in the rat spinal cord. *Brain Research*, **1982**, 247, 75-83	3.7	138
210	Inflammatory masses associated with intrathecal drug infusion: a review of preclinical evidence and human data. *Pain Medicine*, **2002**, 3, 300-12	2.8	137
209	Chronically infused intrathecal morphine in dogs. *Anesthesiology*, **2003**, 99, 174-87	4.3	134
208	Spinal p38 MAP kinase is necessary for NMDA-induced spinal PGE(2) release and thermal hyperalgesia. *NeuroReport*, **2003**, 14, 1153-7	1.7	129
207	Spinal p38beta isoform mediates tissue injury-induced hyperalgesia and spinal sensitization. *Journal of Neurochemistry*, **2005**, 92, 1508-20	6	127
206	A brief comparison of the pathophysiology of inflammatory versus neuropathic pain. *Current Opinion in Anaesthesiology*, **2011**, 24, 400-7	2.9	126
205	An automated flinch detecting system for use in the formalin nociceptive bioassay. *Journal of Applied Physiology*, **2001**, 90, 2386-402	3.7	122
204	Galmic, a nonpeptide galanin receptor agonist, affects behaviors in seizure, pain, and forced-swim tests. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 10470-5	11.5	121
203	The effect of morphine on formalin-evoked behaviour and spinal release of excitatory amino acids and prostaglandin E2 using microdialysis in conscious rats. *British Journal of Pharmacology*, **1995**, 114, 1069-75	8.6	121
202	Localization of N-type Ca2+ channels in the rat spinal cord following chronic constrictive nerve injury. *Experimental Brain Research*, **2002**, 147, 456-63	2.3	112
201	Rapid continuous 3D printing of customizable peripheral nerve guidance conduits. *Materials Today*, **2018**, 21, 951-959	21.8	110
200	Calcium channels as therapeutic targets in neuropathic pain. *Journal of Pain*, **2006**, 7, S13-30	5.2	108
199	Characterization of time course of spinal amino acids, citrulline and PGE2 release after carrageenan/kaolin-induced knee joint inflammation: a chronic microdialysis study. *Pain*, **1996**, 67, 345-54	8	108
198	Spinal phosphinositide 3-kinase-Akt-mammalian target of rapamycin signaling cascades in inflammation-induced hyperalgesia. *Journal of Neuroscience*, **2011**, 31, 2113-24	6.6	104

197	Inhibition by spinal mu- and delta-opioid agonists of afferent-evoked substance P release. *Journal of Neuroscience*, **2005**, 25, 3651-60	6.6	104
196	Spinal TLR4 mediates the transition to a persistent mechanical hypersensitivity after the resolution of inflammation in serum-transferred arthritis. *Pain*, **2011**, 152, 2881-2891	8	102
195	Vincristine-induced allodynia in the rat. *Pain*, **2001**, 93, 69-76	8	100
194	Opioid modulation of capsaicin-evoked release of substance P from rat spinal cord in vivo. *Peptides*, **1989**, 10, 1127-31	3.8	98
193	Spinal 12-lipoxygenase-derived hepoxilin A3 contributes to inflammatory hyperalgesia via activation of TRPV1 and TRPA1 receptors. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 6721-6	11.5	96
192	Characterization of the acute and persistent pain state present in K/BxN serum transfer arthritis. *Pain*, **2010**, 151, 394-403	8	94
191	The Polyanalgesic Consensus Conference (PACC): Recommendations for Intrathecal Drug Delivery: Guidance for Improving Safety and Mitigating Risks. *Neuromodulation*, **2017**, 20, 155-176	3.1	91
190	Transient spinal ischemia in rat: characterization of spinal cord blood flow, extracellular amino acid release, and concurrent histopathological damage. *Journal of Cerebral Blood Flow and Metabolism*, **1994**, 14, 604-14	7.3	87
189	Polyanalgesic Consensus Conference--2012: recommendations to reduce morbidity and mortality in intrathecal drug delivery in the treatment of chronic pain. *Neuromodulation*, **2012**, 15, 467-82; discussion 482	3.1	86
188	Constitutive spinal cyclooxygenase-2 participates in the initiation of tissue injury-induced hyperalgesia. *Journal of Neuroscience*, **2004**, 24, 2727-32	6.6	83
187	Retrospective consideration of the doses of morphine given intrathecally by chronic infusion in 163 patients by 19 physicians. *Pain*, **1987**, 31, 211-223	8	80
186	Toll-like receptor signaling adapter proteins govern spread of neuropathic pain and recovery following nerve injury in male mice. *Journal of Neuroinflammation*, **2013**, 10, 148	10.1	79
185	Cyclooxygenase inhibition in nerve-injury- and TNF-induced hyperalgesia in the rat. *Experimental Neurology*, **2004**, 185, 160-8	5.7	79
184	Concurrent spinal infusion of MK801 blocks spinal tolerance and dependence induced by chronic intrathecal morphine in the rat. *Anesthesiology*, **1996**, 84, 1177-88	4.3	79
183	Descending serotonergic facilitation of spinal ERK activation and pain behavior. *FEBS Letters*, **2006**, 580, 6629-34	3.8	77
182	The Effect of Intrathecal Gabapentin on Pain Behavior and Hemodynamics on the Formalin Test in the Rat. *Anesthesia and Analgesia*, **1999**, 89, 434-439	3.9	75
181	Polyanalgesic Consensus Conference--2012: consensus on diagnosis, detection, and treatment of catheter-tip granulomas (inflammatory masses). *Neuromodulation*, **2012**, 15, 483-95; discussion 496	3.1	71
180	Anti-allodynic efficacy of the chi-conopeptide, Xen2174, in rats with neuropathic pain. *Pain*, **2005**, 118, 112-24	8	70

179	Effects of intrathecal NMDA and non-NMDA antagonists on acute thermal nociception and their interaction with morphine. *Anesthesiology*, **1998**, 89, 715-22	4.3	69
178	Transient spinal ischemia in the rat: characterization of behavioral and histopathological consequences as a function of the duration of aortic occlusion. *Journal of Cerebral Blood Flow and Metabolism*, **1994**, 14, 526-35	7.3	69
177	The search for novel analgesics: targets and mechanisms. *F1000prime Reports*, **2015**, 7, 56		68
176	Spinal phospholipase A2 in inflammatory hyperalgesia: role of group IVA cPLA2. *British Journal of Pharmacology*, **2005**, 144, 940-52	8.6	68
175	The use of intrathecal midazolam in humans: a case study of process. *Anesthesia and Analgesia*, **2004**, 98, 1536-1545	3.9	67
174	Mechanism of action of nonsteroidal anti-inflammatory drugs. *Cancer Investigation*, **1998**, 16, 509-27	2.1	64
173	Systemic and intrathecal effects of a novel series of phospholipase A2 inhibitors on hyperalgesia and spinal prostaglandin E2 release. *Journal of Pharmacology and Experimental Therapeutics*, **2006**, 316, 466-75	4.7	63
172	Effects of intrathecal ketamine in the neonatal rat: evaluation of apoptosis and long-term functional outcome. *Anesthesiology*, **2010**, 113, 147-59	4.3	63
171	Antinociceptive effects of intrathecally administered human beta-endorphin in the rat and cat. *Canadian Journal of Physiology and Pharmacology*, **1978**, 56, 754-9	2.4	62
170	Identification of Psychoactive Degradants of Cannabidiol in Simulated Gastric and Physiological Fluid. *Cannabis and Cannabinoid Research*, **2016**, 1, 102-112	4.6	62
169	Neuraxial analgesia in neonates and infants: a review of clinical and preclinical strategies for the development of safety and efficacy data. *Anesthesia and Analgesia*, **2012**, 115, 638-62	3.9	61
168	Opiate pharmacology of intrathecal granulomas. *Anesthesiology*, **2006**, 105, 590-8	4.3	61
167	Nonopioid actions of intrathecal dynorphin evoke spinal excitatory amino acid and prostaglandin E2 release mediated by cyclooxygenase-1 and -2. *Journal of Neuroscience*, **2004**, 24, 1451-8	6.6	61
166	Therapeutic use of botulinum toxin in migraine: mechanisms of action. *British Journal of Pharmacology*, **2014**, 171, 4177-92	8.6	59
165	Time course and role of morphine dose and concentration in intrathecal granuloma formation in dogs: a combined magnetic resonance imaging and histopathology investigation. *Anesthesiology*, **2006**, 105, 581-9	4.3	59
164	Inhibition of spinal protein kinase C reduces nerve injury-induced tactile allodynia in neuropathic rats. *Neuroscience Letters*, **1999**, 276, 99-102	3.3	59
163	A novel model of primary and secondary hyperalgesia after mild thermal injury in the rat. *Neuroscience Letters*, **1998**, 254, 25-8	3.3	58
162	Galanin acts at GalR1 receptors in spinal antinociception: synergy with morphine and AP-5. *Journal of Pharmacology and Experimental Therapeutics*, **2004**, 308, 574-82	4.7	57

161	Mechanical allodynia in rats is blocked by a Ca2+ permeable AMPA receptor antagonist. *NeuroReport*, **1999**, 10, 3523-6	1.7	57
160	The utility of 2-hydroxypropyl-beta-cyclodextrin as a vehicle for the intracerebral and intrathecal administration of drugs. *Life Sciences*, **1991**, 48, 623-33	6.8	57
159	Persistent hyperalgesia in the cisplatin-treated mouse as defined by threshold measures, the conditioned place preference paradigm, and changes in dorsal root ganglia activated transcription factor 3: the effects of gabapentin, ketorolac, and etanercept. *Anesthesia and Analgesia*, **2013**, 116, 224-31	3.9	55
158	In vitro prostanoid release from spinal cord following peripheral inflammation: effects of substance P, NMDA and capsaicin. *British Journal of Pharmacology*, **1999**, 126, 1333-40	8.6	55
157	Antinociceptive effect of spinally delivered prostaglandin E receptor antagonists in the formalin test on the rat. *Neuroscience Letters*, **1994**, 173, 193-6	3.3	54
156	Antinociception produced by spinal delivery of the S and R enantiomers of flurbiprofen in the formalin test. *European Journal of Pharmacology*, **1994**, 256, 205-9	5.3	50
155	Botulinum toxin B in the sensory afferent: transmitter release, spinal activation, and pain behavior. *Pain*, **2014**, 155, 674-684	8	49
154	Neuraxial morphine may trigger transient motor dysfunction after a noninjurious interval of spinal cord ischemia: a clinical and experimental study. *Anesthesiology*, **2003**, 98, 862-70	4.3	49
153	Capsaicin-evoked prostaglandin E2 release in spinal cord slices: relative effect of cyclooxygenase inhibitors. *European Journal of Pharmacology*, **1994**, 271, 293-9	5.3	49
152	Current status and future directions of botulinum neurotoxins for targeting pain processing. *Toxins*, **2015**, 7, 4519-63	4.9	46
151	Systemic TAK-242 prevents intrathecal LPS evoked hyperalgesia in male, but not female mice and prevents delayed allodynia following intraplantar formalin in both male and female mice: The role of TLR4 in the evolution of a persistent pain state. *Brain, Behavior, and Immunity*, **2016**, 56, 271-80	16.6	46
150	Inflammatory hyperalgesia induces essential bioactive lipid production in the spinal cord. *Journal of Neurochemistry*, **2010**, 114, 981-93	6	44
149	Regulation of spinal substance p release by intrathecal calcium channel blockade. *Anesthesiology*, **2011**, 115, 153-64	4.3	43
148	Nerve growth factor antibody for the treatment of osteoarthritis pain and chronic low-back pain: mechanism of action in the context of efficacy and safety. *Pain*, **2019**, 160, 2210-2220	8	41
147	Targeting toll-like receptor-4 (TLR4)-an emerging therapeutic target for persistent pain states. *Pain* , **2018**, 159, 1908-1915	8	40
146	Release of prostaglandin E(2) and nitric oxide from spinal microglia is dependent on activation of p38 mitogen-activated protein kinase. *Anesthesia and Analgesia*, **2010**, 111, 554-60	3.9	40
145	Inhibition of spinal constitutive NOS-2 by 1400W attenuates tissue injury and inflammation-induced hyperalgesia and spinal p38 activation. *European Journal of Neuroscience*, **2007**, 25, 2964-72	3.5	40
144	Pharmacology and toxicology of chronically infused epidural clonidine.HCl in dogs. *Fundamental and Applied Toxicology*, **1994**, 23, 319-35		40

143	Current and Future Issues in the Development of Spinal Agents for the Management of Pain. *Current Neuropharmacology*, **2017**, 15, 232-259	7.6	38
142	Effects of intrathecal ketorolac on human experimental pain. *Anesthesiology*, **2010**, 112, 1216-24	4.3	38
141	Neuraxial Cytokines in Pain States. *Frontiers in Immunology*, **2019**, 10, 3061	8.4	37
140	Toll-like receptor signaling regulates cisplatin-induced mechanical allodynia in mice. *Cancer Chemotherapy and Pharmacology*, **2014**, 73, 25-34	3.5	37
139	Intravenous Lidocaine. *Anesthesia and Analgesia*, **1997**, 85, 794-796	3.9	37
138	Intrathecal catheterization and drug delivery in the rat. *Methods in Molecular Medicine*, **2004**, 99, 109-21		37
137	Intrathecal ketorolac in dogs and rats. *Toxicological Sciences*, **2004**, 80, 322-34	4.4	37
136	Toxicology profile of N-methyl-D-aspartate antagonists delivered by intrathecal infusion in the canine model. *Anesthesiology*, **2008**, 108, 938-49	4.3	37
135	Behavioral models of pain states evoked by physical injury to the peripheral nerve. *Neurotherapeutics*, **2009**, 6, 609-19	6.4	36
134	An assessment of the antinociceptive efficacy of intrathecal and epidural contulakin-G in rats and dogs. *Anesthesia and Analgesia*, **2007**, 104, 1505-13, table of contents	3.9	36
133	Resting and evoked spinal substance P release during chronic intrathecal morphine infusion: parallels with tolerance and dependence. *Journal of Pharmacology and Experimental Therapeutics*, **2005**, 314, 1362-9	4.7	36
132	Role of spinal cyclooxygenase in human postoperative and chronic pain. *Anesthesiology*, **2010**, 112, 1225-33	4.3	36
131	Role of meningeal mast cells in intrathecal morphine-evoked granuloma formation. *Anesthesiology*, **2013**, 118, 664-78	4.3	36
130	Validation of a preclinical spinal safety model: effects of intrathecal morphine in the neonatal rat. *Anesthesiology*, **2010**, 113, 183-99	4.3	35
129	Spinal action of dermorphin, an extremely potent opioid peptide from frog skin. *Brain Research*, **1986**, 385, 300-4	3.7	35
128	Intrathecal clonidine in the neonatal rat: dose-dependent analgesia and evaluation of spinal apoptosis and toxicity. *Anesthesia and Analgesia*, **2012**, 115, 450-60	3.9	34
127	Development of a canine nociceptive thermal escape model. *Journal of Neuroscience Methods*, **2008**, 168, 88-97	3	34
126	The Emerging Role of Spinal Dynorphin in Chronic Pain: A Therapeutic Perspective. *Annual Review of Pharmacology and Toxicology*, **2016**, 56, 511-33	17.9	33

125	Isolation and culture of sensory neurons from the dorsal-root ganglia of embryonic or adult rats. *Methods in Molecular Medicine*, **2004**, 99, 189-202		32
124	Safety assessment of encapsulated morphine delivered epidurally in a sustained-release multivesicular liposome preparation in dogs. *Drug Delivery*, **2000**, 7, 27-36	7	32
123	Pharmacokinetic analysis of ziconotide (SNX-111), an intrathecal N-type calcium channel blocking analgesic, delivered by bolus and infusion in the dog. *Neuromodulation*, **2012**, 15, 508-19; discussion 519	3.1	31
122	Continuous intrathecal administration of shortlasting mu opioids remifentanil and alfentanil in the rat. *Anesthesiology*, **1996**, 84, 926-35	4.3	31
121	Spinal botulinum neurotoxin B: effects on afferent transmitter release and nociceptive processing. *PLoS ONE*, **2011**, 6, e19126	3.7	31
120	Systematic analysis of rat 12/15-lipoxygenase enzymes reveals critical role for spinal eLOX3 hepoxilin synthase activity in inflammatory hyperalgesia. *FASEB Journal*, **2013**, 27, 1939-49	0.9	30
119	Spinal neurokinin NK1 receptor down-regulation and antinociception: effects of spinal NK1 receptor antisense oligonucleotides and NK1 receptor occupancy. *Journal of Neurochemistry*, **1998**, 70, 688-98	6	30
118	Intrathecal substance P-saporin in the dog: distribution, safety, and spinal neurokinin-1 receptor ablation. *Anesthesiology*, **2013**, 119, 1163-77	4.3	29
117	Studies on spinal opiate receptor pharmacology. III. Analgetic effects of enkephalin dimers as measured by cutaneous-thermal and visceral-chemical evoked responses. *Brain Research*, **1985**, 337, 209-15	3.7	29
116	Spinal toll-like receptor signaling and nociceptive processing: regulatory balance between TIRAP and TRIF cascades mediated by TNF and IFN*Pain*, **2013**, 154, 733-742	8	27
115	The effects of intrathecal and systemic gabapentin on spinal substance P release. *Anesthesia and Analgesia*, **2011**, 112, 971-6	3.9	27
114	Thermal hyperalgesia in rat evoked by intrathecal substance P at multiple stimulus intensities reflects an increase in the gain of nociceptive processing. *Neuroscience Letters*, **1996**, 220, 93-6	3.3	27
113	Eicosanoid production in the caudate nucleus and dorsal hippocampus after forebrain ischemia: a microdialysis study. *Journal of Cerebral Blood Flow and Metabolism*, **1992**, 12, 88-95	7.3	27
112	Temperature dependency of basal and evoked release of amino acids and calcitonin gene-related peptide from rat dorsal spinal cord. *Journal of Neuroscience*, **1997**, 17, 4406-14	6.6	26
111	Inhibition of Neuroinflammation by AIBP: Spinal Effects upon Facilitated Pain States. *Cell Reports*, **2018**, 23, 2667-2677	10.6	26
110	Distribution in Cerebrospinal Fluid, Blood, and Lymph of Epidurally Injected Morphine and Inulin in Dogs. *Anesthesia and Analgesia*, **1986**, 65, 583???592	3.9	25
109	Acetaminophen prevents hyperalgesia in central pain cascade. *Neuroscience Letters*, **2008**, 442, 50-3	3.3	24
108	Fate of the predominant phospholipid component of DepoFoam drug delivery matrix after intrathecal administration of sustained-release encapsulated cytarabine in rats. *Drug Delivery*, **1998**, 5, 143-51	7	24

107	Botulinum toxin blocks mast cells and prevents rosacea like inflammation. *Journal of Dermatological Science*, **2019**, 93, 58-64	4.3	24
106	Spinal synthesis and release of prostanoids after peripheral injury and inflammation. *Advances in Experimental Medicine and Biology*, **1999**, 469, 401-8	3.6	24
105	Basic/Translational Development of Forthcoming Opioid- and Nonopioid-Targeted Pain Therapeutics. *Anesthesia and Analgesia*, **2017**, 125, 1714-1732	3.9	23
104	Role of spinal p38alpha and beta MAPK in inflammatory hyperalgesia and spinal COX-2 expression. *NeuroReport*, **2010**, 21, 313-7	1.7	23
103	Preclinical insights into the implementation of intrathecal midazolam: a cautionary tale. *Anesthesia and Analgesia*, **2004**, 98, 1509-1511	3.9	23
102	Spinal activity of interleukin 6 mediates myelin basic protein-induced allodynia. *Brain, Behavior, and Immunity*, **2016**, 56, 378-89	16.6	22
101	Kinetic and safety studies on intrathecally infused recombinant-methionyl human brain-derived neurotrophic factor in dogs. *Fundamental and Applied Toxicology*, **1997**, 38, 89-100		22
100	A preclinical post laminectomy rat model mimics the human post laminectomy syndrome. *Journal of Neuroscience Methods*, **2004**, 137, 283-9	3	22
99	Systemic and spinal analgesic activity of a delta-opioid-selective lanthionine enkephalin analog. *Journal of Pharmacology and Experimental Therapeutics*, **2003**, 304, 827-32	4.7	22
98	Botulinum toxin in migraine: Role of transport in trigemino-somatic and trigemino-vascular afferents. *Neurobiology of Disease*, **2015**, 79, 111-22	7.5	21
97	Intrathecal P/Q- and R-type calcium channel blockade of spinal substance P release and c-Fos expression. *Neuropharmacology*, **2013**, 75, 1-8	5.5	21
96	Halothane inhibits T cell proliferation and interleukin-2 receptor expression in rats. *Immunopharmacology and Immunotoxicology*, **1996**, 18, 323-36	3.2	21
95	An overview of pathways encoding nociception. *Clinical and Experimental Rheumatology*, **2017**, 35 Suppl 107, 40-46	2.2	21
94	Lipid rafts in glial cells: role in neuroinflammation and pain processing. *Journal of Lipid Research*, **2020**, 61, 655-666	6.3	21
93	Toxicology Evaluation of Drugs Administered via Uncommon Routes: Intranasal, Intraocular, Intrathecal/Intraspinal, and Intra-Articular. *International Journal of Toxicology*, **2018**, 37, 4-27	2.4	20
92	Preclinical toxicity screening of intrathecal oxytocin in rats and dogs. *Anesthesiology*, **2014**, 120, 951-61	4.3	19
91	K/BxN serum transfer arthritis as a model of inflammatory joint pain. *Methods in Molecular Biology*, **2012**, 851, 249-60	1.4	19
90	Effects of intrathecal SNC80, a delta receptor ligand, on nociceptive threshold and dorsal horn substance p release. *Journal of Pharmacology and Experimental Therapeutics*, **2013**, 347, 258-64	4.7	19

89	Characteristics of distribution of morphine and metabolites in cerebrospinal fluid and plasma with chronic intrathecal morphine infusion in humans. *Anesthesia and Analgesia*, **2012**, 115, 797-804	3.9	19
88	Retrovirus-mediated expression of an artificial beta-endorphin precursor in primary fibroblasts. *Journal of Neurochemistry*, **1995**, 64, 475-81	6	19
87	Origins of antidromic activity in sensory afferent fibers and neurogenic inflammation. *Seminars in Immunopathology*, **2018**, 40, 237-247	12	18
86	Antinociception and side effects of liposome-encapsulated alfentanil after spinal delivery in rats. *Anesthesia and Analgesia*, **1994**, 79, 778-86	3.9	18
85	Intrathecal neurosteroids and a neurosteroid antagonist: effects on inflammation-evoked thermal hyperalgesia and tactile allodynia. *Neuroscience Letters*, **2013**, 548, 27-32	3.3	17
84	Intrathecal huperzine A increases thermal escape latency and decreases flinching behavior in the formalin test in rats. *Neuroscience Letters*, **2010**, 470, 6-9	3.3	17
83	Intravenous lidocaine: effects on controlling pain after anti-GD2 antibody therapy in children with neuroblastoma--a report of a series. *Anesthesia and Analgesia*, **1997**, 85, 794-6	3.9	16
82	Spinal amino acid release and repeated withdrawal in spinal morphine tolerant rats. *British Journal of Pharmacology*, **2003**, 138, 689-97	8.6	16
81	Quantitation of endogenous substance P by on-line microcolumn liquid chromatography/continuous-flow fast-atom bombardment mass spectrometry. *Rapid Communications in Mass Spectrometry*, **1989**, 3, 43-6	2.2	16
80	Micturition in the unanesthetized rat: effects of intrathecal capsaicin, N-vanillylnonanamide, 6-hydroxydopamine and 5,6-dihydroxytryptamine. *Brain Research*, **1988**, 451, 301-8	3.7	16
79	Spinal nicotinic receptor expression in spontaneously hypertensive rats. *Hypertension*, **1996**, 28, 1093-9	8.5	16
78	Reciprocal relationship between membrane type 1 matrix metalloproteinase and the algesic peptides of myelin basic protein contributes to chronic neuropathic pain. *Brain, Behavior, and Immunity*, **2017**, 60, 282-292	16.6	15
77	Intrathecal protease-activated receptor stimulation produces thermal hyperalgesia through spinal cyclooxygenase activity. *Journal of Pharmacology and Experimental Therapeutics*, **2004**, 311, 356-63	4.7	15
76	Synthesis and biological activity of a novel methylamine-bridged enkephalin analogue (MABE): a new route to cyclic peptides and peptidomimetics. *Journal of Medicinal Chemistry*, **1998**, 41, 2631-5	8.3	15
75	Role of myelin auto-antigens in pain: a female connection. *Neural Regeneration Research*, **2016**, 11, 890-1	4.5	15
74	Unintended consequences of COVID-19 safety measures on patients with chronic knee pain forced to defer joint replacement surgery. *Pain Reports*, **2020**, 5, e855	3.5	15
73	Long-lasting analgesia via targeted in situ repression of Na1.7 in mice. *Science Translational Medicine*, **2021**, 13,	17.5	15
72	Primary Hydromorphone-Related Intrathecal Catheter Tip Granulomas: Is There a Role for Dose and Concentration?. *Neuromodulation*, **2016**, 19, 760-769	3.1	15

71	Alfentanil: correlations between absence of effect upon subcutaneous mast cells and absence of granuloma formation after intrathecal infusion in the dog. *Neuromodulation*, **2013**, 16, 459-66; discussion 466	3.1	14
70	Regulation of spinal nociceptive processing: where we went when we wandered onto the path marked by the gate. *Pain*, **1999**, Suppl 6, S149-S152	8	14
69	Effects of chronic intrathecal infusion of a partial differential opioid agonist in dogs. *Toxicological Sciences*, **2003**, 71, 263-75	4.4	13
68	Transient spinal cord ischemia in rat: the time course of spinal FOS protein expression and the effect of intraischemic hypothermia (27 degrees C). *Cellular and Molecular Neurobiology*, **2000**, 20, 351-65	4.6	13
67	Characterization of the Effects of L-4-Chlorokynurenine on Nociception in Rodents. *Journal of Pain*, **2017**, 18, 1184-1196	5.2	12
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