Brian M Davis

List of Publications by Year in Descending Order

103 papers	5,112 citations	42 h-index	69 g-index
107 ext. papers	5,839 ext. citations	6.6 avg, IF	5.41 L-index

#	Paper	IF	Citations
103	Optogenetic Modulation of the Visceromotor Response to Reveal Visceral Pain Mechanisms. *Neuromethods*, **2022**, 321-332	0.4	
102	Gamma-Irradiated Cornea in Combat-related Ocular Trauma. *Military Medicine*, **2021**, 186, e840-e842	1.3	
101	Safety and efficacy of human serum albumin treatment in patients with cirrhotic ascites undergoing paracentesis: A systematic review and meta-analysis. *Annals of Hepatology*, **2021**, 100547	3.1	0
100	Optogenetic inhibition of the colon epithelium reduces hypersensitivity in a mouse model of inflammatory bowel disease. *Pain*, **2021**, 162, 1126-1134	8	3
99	Future directions in preclinical and translational cancer neuroscience research. *Nature Cancer*, **2021**, 1, 1027-1031	15.4	7
98	Aging bodies, aging emotions: Interoceptive differences in emotion representations and self-reports across adulthood. *Emotion*, **2021**, 21, 227-246	4.1	7
97	Nonpeptidergic neurons suppress mast cells via glutamate to maintain skin homeostasis. *Cell*, **2021**, 184, 2151-2166.e16	56.2	19
96	Sympathetic Input to Multiple Cell Types in Mouse and Human Colon Produces Region-Specific Responses. *Gastroenterology*, **2021**, 160, 1208-1223.e4	13.3	13
95	Synaptic Components, Function and Modulation Characterized by GCaMP6f Ca Imaging in Mouse Cholinergic Myenteric Ganglion Neurons. *Frontiers in Physiology*, **2021**, 12, 652714	4.6	2
94	Optogenetic activation of the distal colon epithelium engages enteric nervous system circuits to initiate motility patterns. *American Journal of Physiology - Renal Physiology*, **2021**, 321, G426-G435	5.1	1
93	Unique Neural Circuit Connectivity of Mouse Proximal, Middle, and Distal Colon Defines Regional Colonic Motor Patterns. *Cellular and Molecular Gastroenterology and Hepatology*, **2021**,	7.9	3
92	scRNA-Seq Reveals New Enteric Nervous System Roles for GDNF, NRTN, and TBX3. *Cellular and Molecular Gastroenterology and Hepatology*, **2021**, 11, 1548-1592.e1	7.9	14
91	Clinically Actionable Strategies for Studying Neural Influences in Cancer. *Cancer Cell*, **2020**, 38, 11-14	24.3	9
90	Epithelial-Neuronal Communication in the Colon: Implications for Visceral Pain. *Trends in Neurosciences*, **2020**, 43, 170-181	13.3	12
89	Unique Molecular Characteristics of Visceral Afferents Arising from Different Levels of the Neuraxis: Location of Afferent Somata Predicts Function and Stimulus Detection Modalities. *Journal of Neuroscience*, **2020**, 40, 7216-7228	6.6	9
88	Cutaneous TRPV1 Neurons Trigger Protective Innate Type 17 Anticipatory Immunity. *Cell*, **2019**, 178, 919-932.e14	56.2	107
87	Extrinsic Primary Afferent Neurons Link Visceral Pain to Colon Motility Through a Spinal Reflex in Mice. *Gastroenterology*, **2019**, 157, 522-536.e2	13.3	30

86	Animal Models: Challenges and Opportunities to Determine Optimal Experimental Models of Pancreatitis and Pancreatic Cancer. *Pancreas*, **2019**, 48, 759-779	2.6	14
85	The Role of Neurogenic Inflammation in Pancreatitis **2018**, 173-177		
84	Differential Regulation of Bladder Pain and Voiding Function by Sensory Afferent Populations Revealed by Selective Optogenetic Activation. *Frontiers in Integrative Neuroscience*, **2018**, 12, 5	3.2	13
83	Systemic Depletion of Nerve Growth Factor Inhibits Disease Progression in a Genetically Engineered Model of Pancreatic Ductal Adenocarcinoma. *Pancreas*, **2018**, 47, 856-863	2.6	25
82	Kappa Opioid Receptor Distribution and Function in Primary Afferents. *Neuron*, **2018**, 99, 1274-1288.e6	13.9	57
81	Optogenetic Activation of Colon Epithelium of the Mouse Produces High-Frequency Bursting in Extrinsic Colon Afferents and Engages Visceromotor Responses. *Journal of Neuroscience*, **2018**, 38, 5788-5798	6.6	21
80	Cutaneous neurturin overexpression alters mechanical, thermal, and cold responsiveness in physiologically identified primary afferents. *Journal of Neurophysiology*, **2017**, 117, 1258-1265	3.2	5
79	Gi-DREADD Expression in Peripheral Nerves Produces Ligand-Dependent Analgesia, as well as Ligand-Independent Functional Changes in Sensory Neurons. *Journal of Neuroscience*, **2016**, 36, 10769-10781	6.6	58
78	Can Stopping Nerves, Stop Cancer?. *Trends in Neurosciences*, **2016**, 39, 880-889	13.3	57
77	Mechanism, assessment and management of pain in chronic pancreatitis: Recommendations of a multidisciplinary study group. *Pancreatology*, **2016**, 16, 83-94	3.8	53
76	Profound alteration in cutaneous primary afferent activity produced by inflammatory mediators. *ELife*, **2016**, 5,	8.9	24
75	Ablation of sensory neurons in a genetic model of pancreatic ductal adenocarcinoma slows initiation and progression of cancer. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 3078-83	11.5	142
74	Artemin Immunotherapy Is Effective in Preventing and Reversing Cystitis-Induced Bladder Hyperalgesia via TRPA1 Regulation. *Journal of Pain*, **2015**, 16, 628-36	5.2	29
73	Keratinocytes can modulate and directly initiate nociceptive responses. *ELife*, **2015**, 4,	8.9	94
72	Author response: Keratinocytes can modulate and directly initiate nociceptive responses **2015**,		3
71	Artemin growth factor increases nicotinic cholinergic receptor subunit expression and activity in nociceptive sensory neurons. *Molecular Pain*, **2014**, 10, 31	3.4	24
70	TRPA1 mediates bladder hyperalgesia in a mouse model of cystitis. *Pain*, **2014**, 155, 1280-1287	8	59
69	Neuroplastic changes occur early in the development of pancreatic ductal adenocarcinoma. *Cancer Research*, **2014**, 74, 1718-27	10.1	90

68	Abdominal pain and the neurotrophic system in ulcerative colitis. *Inflammatory Bowel Diseases*, **2014**, 20, 2330-9	4.5	11
67	Genetic control of the segregation of pain-related sensory neurons innervating the cutaneous versus deep tissues. *Cell Reports*, **2013**, 5, 1353-64	10.6	28
66	Neurturin overexpression in skin enhances expression of TRPM8 in cutaneous sensory neurons and leads to behavioral sensitivity to cool and menthol. *Journal of Neuroscience*, **2013**, 33, 2060-70	6.6	19
65	TRPV1 and TRPA1 antagonists prevent the transition of acute to chronic inflammation and pain in chronic pancreatitis. *Journal of Neuroscience*, **2013**, 33, 5603-11	6.6	121
64	Synergistic role of TRPV1 and TRPA1 in pancreatic pain and inflammation. *Gastroenterology*, **2011**, 140, 1283-1291.e1-2	13.3	107
63	Phenotypic switching of nonpeptidergic cutaneous sensory neurons following peripheral nerve injury. *PLoS ONE*, **2011**, 6, e28908	3.7	27
62	TRPV1 and TRPA1 function and modulation are target tissue dependent. *Journal of Neuroscience*, **2011**, 31, 10516-28	6.6	110
61	Neonatal colon insult alters growth factor expression and TRPA1 responses in adult mice. *Pain*, **2010**, 151, 540-549	8	58
60	Cutaneous C-polymodal fibers lacking TRPV1 are sensitized to heat following inflammation, but fail to drive heat hyperalgesia in the absence of TPV1 containing C-heat fibers. *Molecular Pain*, **2010**, 6, 58	3.4	31
59	TPRV1 expression defines functionally distinct pelvic colon afferents. *Journal of Neuroscience*, **2009** , 29, 743-52	6.6	56
58	Development, plasticity and modulation of visceral afferents. *Brain Research Reviews*, **2009**, 60, 171-86		67
57	Pain and inflammatory bowel disease. *Inflammatory Bowel Diseases*, **2009**, 15, 778-88	4.5	170
56	Overexpression of artemin in the tongue increases expression of TRPV1 and TRPA1 in trigeminal afferents and causes oral sensitivity to capsaicin and mustard oil. *Brain Research*, **2008**, 1230, 80-90	3.7	35
55	TRPV1 unlike TRPV2 is restricted to a subset of mechanically insensitive cutaneous nociceptors responding to heat. *Journal of Pain*, **2008**, 9, 298-308	5.2	125
54	Thermal nociception and TRPV1 function are attenuated in mice lacking the nucleotide receptor P2Y2. *Pain*, **2008**, 138, 484-496	8	67
53	Heat detection without TRPV1. *Journal of Pain*, **2008**, 9, 666	5.2	2
52	Differential effects of ASIC3 and TRPV1 deletion on gastroesophageal sensation in mice. *American Journal of Physiology - Renal Physiology*, **2008**, 294, G130-8	5.1	84
51	Dichotomizing axons in spinal and vagal afferents of the mouse stomach. *Digestive Diseases and Sciences*, **2008**, 53, 194-203	4	38

50	Distribution and neurochemical identification of pancreatic afferents in the mouse. *Journal of Comparative Neurology*, **2008**, 509, 42-52	3.4	57
49	Postnatal roles of glial cell line-derived neurotrophic factor family members in nociceptors plasticity. *Acta Physiologica Sinica*, **2008**, 60, 571-8	1.3	9
48	Pain in chronic pancreatitis and pancreatic cancer. *Gastroenterology Clinics of North America*, **2007**, 36, 335-64, ix	4.4	61
47	The skin as a neurotrophic organ. *Neuroscientist*, **2007**, 13, 371-82	7.6	34
46	Production of dissociated sensory neuron cultures and considerations for their use in studying neuronal function and plasticity. *Nature Protocols*, **2007**, 2, 152-60	18.8	294
45	Altered inflammatory gene expression underlies increased susceptibility to murine postoperative ileus with advancing age. *American Journal of Physiology - Renal Physiology*, **2007**, 292, G1650-9	5.1	16
44	Convergence of bladder and colon sensory innervation occurs at the primary afferent level. *Pain*, **2007**, 128, 235-243	8	135
43	Differences in spinal distribution and neurochemical phenotype of colonic afferents in mouse and rat. *Journal of Comparative Neurology*, **2006**, 494, 246-59	3.4	93
42	Overexpression of neurotrophin 4 in skin enhances myelinated sensory endings but does not influence sensory neuron number. *Journal of Comparative Neurology*, **2006**, 498, 455-65	3.4	27
41	Phenotypic characterization of gastric sensory neurons in mice. *American Journal of Physiology - Renal Physiology*, **2006**, 291, G987-97	5.1	41
40	Glial cell-line-derived neurotrophic factor expression in skin alters the mechanical sensitivity of cutaneous nociceptors. *Journal of Neuroscience*, **2006**, 26, 2981-90	6.6	99
39	Artemin overexpression in skin enhances expression of TRPV1 and TRPA1 in cutaneous sensory neurons and leads to behavioral sensitivity to heat and cold. *Journal of Neuroscience*, **2006**, 26, 8578-87	6.6	131
38	Glial cell line-derived neurotrophic factor family members sensitize nociceptors in vitro and produce thermal hyperalgesia in vivo. *Journal of Neuroscience*, **2006**, 26, 8588-99	6.6	203
37	Reduced thermal sensitivity and Nav1.8 and TRPV1 channel expression in sensory neurons of aged mice. *Neurobiology of Aging*, **2006**, 27, 895-903	5.6	55
36	Transient receptor potential vanilloid 1-immunopositive neurons in the mouse are more prevalent within colon afferents compared to skin and muscle afferents. *Neuroscience*, **2006**, 140, 247-57	3.9	81
35	Overexpression of NGF or GDNF alters transcriptional plasticity evoked by inflammation. *Pain*, **2005**, 113, 277-284	8	34
34	Nociceptors lacking TRPV1 and TRPV2 have normal heat responses. *Journal of Neuroscience*, **2004**, 24, 6410-5	6.6	221
33	NT3 expressed in skin causes enhancement of SA1 sensory neurons that leads to postnatal enhancement of Merkel cells. *Journal of Comparative Neurology*, **2004**, 471, 352-60	3.4	25

32	Rescue of NGF-deficient mice II: basal forebrain cholinergic projections require NGF for target innervation but not guidance. *Molecular Brain Research*, **2004**, 124, 1-11		7
31	Rescue of NGF-deficient mice I: transgenic expression of NGF in skin rescues mice lacking endogenous NGF. *Molecular Brain Research*, **2004**, 122, 116-25		16
30	Transgenic mice possessing increased numbers of nociceptors do not exhibit increased behavioral sensitivity in models of inflammatory and neuropathic pain. *Pain*, **2003**, 106, 491-500	8	25
29	Glial cell line-derived neurotrophic factor is a survival factor for isolectin B4-positive, but not vanilloid receptor 1-positive, neurons in the mouse. *Journal of Neuroscience*, **2002**, 22, 4057-65	6.6	188
28	Excess target-derived neurotrophin-3 alters the segmental innervation of the skin. *European Journal of Neuroscience*, **2001**, 14, 411-8	3.5	9
27	Epithelial overexpression of BDNF or NT4 disrupts targeting of taste neurons that innervate the anterior tongue. *Developmental Biology*, **2001**, 232, 508-21	3.1	65
26	Effect of peripheral nerve lesion and lumbar sympathectomy on peptide regulation in dorsal root ganglia in the NGF-overexpressing mouse. *Experimental Neurology*, **2001**, 167, 290-303	5.7	8
25	Overexpression of GDNF induces and maintains hyperinnervation of muscle fibers and multiple end-plate formation. *Experimental Neurology*, **2001**, 171, 342-50	5.7	45
24	Skin-derived nerve growth factor blocks programmed cell death in the trigeminal ganglia but does not enhance neuron proliferation. *Mechanisms of Development*, **2001**, 109, 205-14	1.7	10
23	Cutaneous overexpression of neurotrophin-3 (NT3) selectively restores sensory innervation in NT3 gene knockout mice. *Journal of Neurobiology*, **2000**, 43, 40-9		16
22	Levels of nerve growth factor and neurotrophin-3 are affected differentially by the presence of p75 in sympathetic neurons in vivo. *Journal of Comparative Neurology*, **2000**, 424, 99-110	3.4	18
21	Maturation of cutaneous sensory neurons from normal and NGF-overexpressing mice. *Journal of Neurophysiology*, **2000**, 83, 1722-32	3.2	22
20	Overexpression of brain-derived neurotrophic factor enhances sensory innervation and selectively increases neuron number. *Journal of Neuroscience*, **1999**, 19, 5919-31	6.6	92
19	Sodium channel expression in NGF-overexpressing transgenic mice. *Journal of Neuroscience Research*, **1999**, 57, 39-47	4.4	53
18	Neurotrophins, nociceptors, and pain. *Microscopy Research and Technique*, **1999**, 45, 252-61	2.8	148
17	Sodium channel expression in NGF-overexpressing transgenic mice **1999**, 57, 39		2
16	Overexpression of nerve growth factor in epidermis disrupts the distribution and properties of sympathetic innervation in footpads. *Journal of Comparative Neurology*, **1998**, 393, 231-43	3.4	21
15	Level of p75 receptor expression in sensory ganglia is modulated by NGF level in the target tissue. *Journal of Neurobiology*, **1998**, 35, 258-70		18

14	Over-expression of NGF in skin causes formation of novel sympathetic projections to trkA-positive sensory neurons. *NeuroReport*, **1998**, 9, 1103-7	1.7	28
13	Overexpression of nerve growth factor in skin increases sensory neuron size and modulates Trk receptor expression. *European Journal of Neuroscience*, **1997**, 9, 1574-85	3.5	59
12	Overexpression of nerve growth factor in skin causes preferential increases among innervation to specific sensory targets. *Journal of Comparative Neurology*, **1997**, 387, 489-506	3.4	75
11	Overexpression of nerve growth factor in epidermis of transgenic mice preserves excess sensory neurons but does not alter the somatotopic organization of cutaneous nerve projections. *Neuroscience Letters*, **1996**, 211, 68-72	3.3	21
10	Effects of NGF overexpression on anatomical and physiological properties of sympathetic postganglionic neurons. *Brain Research*, **1996**, 724, 47-54	3.7	32
9	Excess nerve growth factor in the periphery does not obscure development of whisker-related patterns in the rodent brain. *Journal of Comparative Neurology*, **1996**, 374, 41-51	3.4	17
8	Posthatching development of preproenkephalin mRNA-expressing cell populations in the pigeon telencephalon. *Developmental Brain Research*, **1995**, 84, 233-44		4
7	Distribution of preproenkephalin mRNA in the chicken and pigeon telencephalon. *Journal of Comparative Neurology*, **1994**, 348, 419-32	3.4	22
6	Overexpression of nerve growth factor in transgenic mice induces novel sympathetic projections to primary sensory neurons. *Journal of Comparative Neurology*, **1994**, 349, 464-74	3.4	85
5	Galanin gene expression in the hypothalamopituitary axis of the ames dwarf mouse. *Molecular and Cellular Neurosciences*, **1993**, 4, 298-303	4.8	11
4	Origin of spinal cord axons in the lizard regenerated tail: supernormal projections from local spinal neurons. *Journal of Comparative Neurology*, **1990**, 293, 208-22	3.4	53
3	Time course of salamander spinal cord regeneration and recovery of swimming: HRP retrograde pathway tracing and kinematic analysis. *Experimental Neurology*, **1990**, 108, 198-213	5.7	68
2	The distribution of enkephalinlike immunoreactivity in the telencephalon of the adult and developing domestic chicken. *Journal of Comparative Neurology*, **1984**, 228, 245-62	3.4	95
1	Extracellular ATP released from Candida albicans activates non-peptidergic neurons to augment host defense		1