

Aubin Moutal

List of Publications by Year in descending order

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Version: 2024-02-01

78
papers

2,081
citations

201575

27
h-index

302012

39
g-index

91
all docs

91
docs citations

91
times ranked

1919
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | SARS-CoV-2 spike protein co-opts VEGF-A/neuropilin-1 receptor signaling to induce analgesia. <i>Pain</i> , 2021, 162, 243-252. | 2.0 | 119 |
| 2 | Hierarchical CRMP2 posttranslational modifications control Nav1.7 function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E8443-E8452. | 3.3 | 103 |
| 3 | Long-lasting antinociceptive effects of green light in acute and chronic pain in rats. <i>Pain</i> , 2017, 158, 347-360. | 2.0 | 81 |
| 4 | A membrane-delimited N-myristoylated CRMP2 peptide aptamer inhibits CaV2.2 trafficking and reverses inflammatory and postoperative pain behaviors. <i>Pain</i> , 2015, 156, 1247-1264. | 2.0 | 71 |
| 5 | CRISPR/Cas9 editing of Nf1 gene identifies CRMP2 as a therapeutic target in neurofibromatosis type 1-related pain that is reversed by (S)-Lacosamide. <i>Pain</i> , 2017, 158, 2301-2319. | 2.0 | 67 |
| 6 | Dysregulation of CRMP2 Post-Translational Modifications Drive Its Pathological Functions. <i>Molecular Neurobiology</i> , 2019, 56, 6736-6755. | 1.9 | 55 |
| 7 | (S)-Lacosamide inhibition of CRMP2 phosphorylation reduces postoperative and neuropathic pain behaviors through distinct classes of sensory neurons identified by constellation pharmacology. <i>Pain</i> , 2016, 157, 1448-1463. | 2.0 | 54 |
| 8 | (S)-Lacosamide Binding to Collapsin Response Mediator Protein 2 (CRMP2) Regulates CaV2.2 Activity by Subverting Its Phosphorylation by Cdk5. <i>Molecular Neurobiology</i> , 2016, 53, 1959-1976. | 1.9 | 50 |
| 9 | Dissecting the role of the CRMP2-neurofibromin complex on pain behaviors. <i>Pain</i> , 2017, 158, 2203-2221. | 2.0 | 50 |
| 10 | Inhibition of the Ubc9 E2 SUMO-conjugating enzyme-CRMP2 interaction decreases Nav1.7 currents and reverses experimental neuropathic pain. <i>Pain</i> , 2018, 159, 2115-2127. | 2.0 | 49 |
| 11 | A light-gated potassium channel for sustained neuronal inhibition. <i>Nature Methods</i> , 2018, 15, 969-976. | 9.0 | 47 |
| 12 | Cdk5-mediated CRMP2 phosphorylation is necessary and sufficient for peripheral neuropathic pain. <i>Neurobiology of Pain (Cambridge, Mass)</i> , 2019, 5, 100022. | 1.0 | 46 |
| 13 | The prolactin receptor long isoform regulates nociceptor sensitization and opioid-induced hyperalgesia selectively in females. <i>Science Translational Medicine</i> , 2020, 12, . | 5.8 | 46 |
| 14 | Betulinic acid, derived from the desert lavender <i>Hyptis emoryi</i> , attenuates paclitaxel-, HIV-, and nerve injury-associated peripheral sensory neuropathy via block of N- and T-type calcium channels. <i>Pain</i> , 2019, 160, 117-135. | 2.0 | 44 |
| 15 | A porcine model of neurofibromatosis type 1 that mimics the human disease. <i>JCI Insight</i> , 2018, 3, . | 2.3 | 44 |
| 16 | Synaptic zinc inhibition of NMDA receptors depends on the association of GluN2A with the zinc transporter ZnT1. <i>Science Advances</i> , 2020, 6, . | 4.7 | 43 |
| 17 | Targeting T-type/CaV3.2 channels for chronic pain. <i>Translational Research</i> , 2021, 234, 20-30. | 2.2 | 42 |
| 18 | Homology-guided mutational analysis reveals the functional requirements for antinociceptive specificity of collapsin response mediator protein 2-derived peptides. <i>British Journal of Pharmacology</i> , 2018, 175, 2244-2260. | 2.7 | 40 |

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|----|---|-----|-----------|
| 19 | The functionalized amino acid (S)-Lacosamide subverts CRMP2-mediated tubulin polymerization to prevent constitutive and activity-dependent increase in neurite outgrowth. <i>Frontiers in Cellular Neuroscience</i> , 2014, 8, 196. | 1.8 | 38 |
| 20 | Differential neuroprotective potential of CRMP2 peptide aptamers conjugated to cationic, hydrophobic, and amphipathic cell penetrating peptides. <i>Frontiers in Cellular Neuroscience</i> , 2015, 8, 471. | 1.8 | 37 |
| 21 | Phosphorylated CRMP2 Regulates Spinal Nociceptive Neurotransmission. <i>Molecular Neurobiology</i> , 2019, 56, 5241-5255. | 1.9 | 36 |
| 22 | CRMP5 Controls Glioblastoma Cell Proliferation and Survival through Notch-Dependent Signaling. <i>Cancer Research</i> , 2015, 75, 3519-3528. | 0.4 | 35 |
| 23 | CRMP2-Neurofibromin Interface Drives NF1-related Pain. <i>Neuroscience</i> , 2018, 381, 79-90. | 1.1 | 35 |
| 24 | A single structurally conserved SUMOylation site in CRMP2 controls Nav1.7 function. <i>Channels</i> , 2017, 11, 316-328. | 1.5 | 34 |
| 25 | Targeting a Potassium Channel/Syntaxin Interaction Ameliorates Cell Death in Ischemic Stroke. <i>Journal of Neuroscience</i> , 2017, 37, 5648-5658. | 1.7 | 33 |
| 26 | Sustained relief of ongoing experimental neuropathic pain by a CRMP2 peptide aptamer with low abuse potential. <i>Pain</i> , 2016, 157, 2124-2140. | 2.0 | 30 |
| 27 | Targeting the CaV1.2-CaV2.2 interaction yields an antagonist of the N-type CaV2.2 channel with broad antinociceptive efficacy. <i>Pain</i> , 2019, 160, 1644-1661. | 2.0 | 30 |
| 28 | Novel Compounds Targeting Neuropilin Receptor 1 with Potential To Interfere with SARS-CoV-2 Virus Entry. <i>ACS Chemical Neuroscience</i> , 2021, 12, 1299-1312. | 1.7 | 30 |
| 29 | CRMP2 is necessary for Neurofibromatosis type 1 related pain. <i>Channels</i> , 2018, 12, 47-50. | 1.5 | 26 |
| 30 | Reversal of Peripheral Neuropathic Pain by the Small-Molecule Natural Product Physalin F via Block of CaV2.3 (R-Type) and CaV2.2 (N-Type) Voltage-Gated Calcium Channels. <i>ACS Chemical Neuroscience</i> , 2019, 10, 2939-2955. | 1.7 | 26 |
| 31 | Missense variants in DPYSL5 cause a neurodevelopmental disorder with corpus callosum agenesis and cerebellar abnormalities. <i>American Journal of Human Genetics</i> , 2021, 108, 951-961. | 2.6 | 26 |
| 32 | CRMP2 Phosphorylation Drives Glioblastoma Cell Proliferation. <i>Molecular Neurobiology</i> , 2018, 55, 4403-4416. | 1.9 | 25 |
| 33 | Studies on CRMP2 SUMOylation-deficient transgenic mice identify sex-specific Nav1.7 regulation in the pathogenesis of chronic neuropathic pain. <i>Pain</i> , 2020, 161, 2629-2651. | 2.0 | 25 |
| 34 | Efficacy of (S)-lacosamide in preclinical models of cephalic pain. <i>Pain Reports</i> , 2016, 1, e565. | 1.4 | 24 |
| 35 | TNF- α mediated upregulation of Nav1.7 currents in rat dorsal root ganglion neurons is independent of CRMP2 SUMOylation. <i>Molecular Brain</i> , 2019, 12, 117. | 1.3 | 23 |
| 36 | Selective targeting of Nav1.7 via inhibition of the CRMP2-Ubc9 interaction reduces pain in rodents. <i>Science Translational Medicine</i> , 2021, 13, eabh1314. | 5.8 | 23 |

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|----|--|-----|-----------|
| 37 | (α^*)-Hardwickic Acid and Hautriwaic Acid Induce Antinociception via Blockade of Tetrodotoxin-Sensitive Voltage-Dependent Sodium Channels. <i>ACS Chemical Neuroscience</i> , 2019, 10, 1716-1728. | 1.7 | 22 |
| 38 | Targeted disruption of Kv2.1-VAPA association provides neuroprotection against ischemic stroke in mice by declustering Kv2.1 channels. <i>Science Advances</i> , 2020, 6, . | 4.7 | 21 |
| 39 | Restoration of Kv7 Channel-Mediated Inhibition Reduces Cued-Reinstatement of Cocaine Seeking. <i>Journal of Neuroscience</i> , 2018, 38, 4212-4229. | 1.7 | 20 |
| 40 | Genetic and pharmacological antagonism of NK1 receptor prevents opiate abuse potential. <i>Molecular Psychiatry</i> , 2018, 23, 1745-1755. | 4.1 | 20 |
| 41 | The Natural Flavonoid Naringenin Elicits Analgesia through Inhibition of Nav1.8 Voltage-Gated Sodium Channels. <i>ACS Chemical Neuroscience</i> , 2019, 10, 4834-4846. | 1.7 | 20 |
| 42 | The role of cyclin-dependent kinase 5 in neuropathic pain. <i>Pain</i> , 2020, 161, 2674-2689. | 2.0 | 20 |
| 43 | Dysregulation of serum prolactin links the hypothalamus with female nociceptors to promote migraine. <i>Brain</i> , 2022, 145, 2894-2909. | 3.7 | 20 |
| 44 | Sensitization of Ion Channels Contributes to Central and Peripheral Dysfunction in Neurofibromatosis Type 1. <i>Molecular Neurobiology</i> , 2017, 54, 3342-3349. | 1.9 | 19 |
| 45 | High Fidelity Cryopreservation and Recovery of Primary Rodent Cortical Neurons. <i>ENeuro</i> , 2018, 5, ENEURO.0135-18.2018. | 0.9 | 18 |
| 46 | Non-SUMOylated CRMP2 decreases Nav1.7 currents via the endocytic proteins Numb, Nedd4-2 and Eps15. <i>Molecular Brain</i> , 2021, 14, 20. | 1.3 | 17 |
| 47 | Transcriptional regulation of CRMP5 controls neurite outgrowth through Sox5. <i>Cellular and Molecular Life Sciences</i> , 2018, 75, 67-79. | 2.4 | 16 |
| 48 | A novel variant in <i>TAF1</i> affects gene expression and is associated with X-linked intellectual disability syndrome. <i>Neuronal Signaling</i> , 2018, 2, NS20180141. | 1.7 | 16 |
| 49 | Development and Characterization of An Injury-free Model of Functional Pain in Rats by Exposure to Red Light. <i>Journal of Pain</i> , 2019, 20, 1293-1306. | 0.7 | 15 |
| 50 | A prolactin-dependent sexually dimorphic mechanism of migraine chronification. <i>Cephalalgia</i> , 2022, 42, 197-208. | 1.8 | 14 |
| 51 | Druggability of CRMP2 for Neurodegenerative Diseases. <i>ACS Chemical Neuroscience</i> , 2020, 11, 2492-2505. | 1.7 | 13 |
| 52 | A modulator of the low-voltage-activated T-type calcium channel that reverses HIV glycoprotein 120-, paclitaxel-, and spinal nerve ligation-induced peripheral neuropathies. <i>Pain</i> , 2020, 161, 2551-2570. | 2.0 | 12 |
| 53 | Coordinating Synaptic Signaling with CRMP2. <i>International Journal of Biochemistry and Cell Biology</i> , 2020, 124, 105759. | 1.2 | 12 |
| 54 | Heat shock protein Grp78/BiP/HspA5 binds directly to TDP-43 and mitigates toxicity associated with disease pathology. <i>Scientific Reports</i> , 2022, 12, 8140. | 1.6 | 12 |

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|----|--|-----|-----------|
| 55 | Assessment of nociception and related quality-of-life measures in a porcine model of neurofibromatosis type 1. <i>Pain</i> , 2019, 160, 2473-2486. | 2.0 | 11 |
| 56 | Dynamic CRMP2 Regulation of CaV2.2 in the Prefrontal Cortex Contributes to the Reinstatement of Cocaine Seeking. <i>Molecular Neurobiology</i> , 2020, 57, 346-357. | 1.9 | 11 |
| 57 | Green Light Antinociceptive and Reversal of Thermal and Mechanical Hypersensitivity Effects Rely on Endogenous Opioid System Stimulation. <i>Journal of Pain</i> , 2021, 22, 1646-1656. | 0.7 | 11 |
| 58 | A Chemical Biology Approach to Model Pontocerebellar Hypoplasia Type 1B (PCH1B). <i>ACS Chemical Biology</i> , 2018, 13, 3000-3010. | 1.6 | 9 |
| 59 | Putative roles of SLC7A5 (LAT1) transporter in pain. <i>Neurobiology of Pain (Cambridge, Mass)</i> , 2020, 8, 100050. | 1.0 | 9 |
| 60 | Collapsin Response Mediator Proteins: Novel Targets for Alzheimer's Disease. <i>Journal of Alzheimer's Disease</i> , 2020, 77, 949-960. | 1.2 | 9 |
| 61 | Unconventional Signaling by Extracellular CRMP2: Possible Role as an Atypical Neurotransmitter?. <i>Neuroscience</i> , 2018, 376, 224-226. | 1.1 | 8 |
| 62 | Defining the Kv2.1-syntaxin molecular interaction identifies a first-in-class small molecule neuroprotectant. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 15696-15705. | 3.3 | 8 |
| 63 | TAF1-gene editing alters the morphology and function of the cerebellum and cerebral cortex. <i>Neurobiology of Disease</i> , 2019, 132, 104539. | 2.1 | 8 |
| 64 | Neuronal Conditional Knockout of Collapsin Response Mediator Protein 2 Ameliorates Disease Severity in a Mouse Model of Multiple Sclerosis. <i>ASN Neuro</i> , 2019, 11, 175909141989209. | 1.5 | 8 |
| 65 | The Effects of Repeated Morphine Treatment on the Endogenous Cannabinoid System in the Ventral Tegmental Area. <i>Frontiers in Pharmacology</i> , 2021, 12, 632757. | 1.6 | 8 |
| 66 | Chronic pain recruits hypothalamic dynorphin/kappa opioid receptor signalling to promote wakefulness and vigilance. <i>Brain</i> , 2023, 146, 1186-1199. | 3.7 | 8 |
| 67 | Differential expression of Cdk5-phosphorylated CRMP2 following a spared nerve injury. <i>Molecular Brain</i> , 2020, 13, 97. | 1.3 | 7 |
| 68 | Conditional knockout of CRMP2 in neurons, but not astrocytes, disrupts spinal nociceptive neurotransmission to control the initiation and maintenance of chronic neuropathic pain. <i>Pain</i> , 2022, 163, e368-e381. | 2.0 | 7 |
| 69 | <i>Alternaria alternata</i> -induced airway epithelial signaling and inflammatory responses via protease-activated receptor-2 expression. <i>Biochemical and Biophysical Research Communications</i> , 2022, 591, 13-19. | 1.0 | 7 |
| 70 | Activity of T-type calcium channels is independent of CRMP2 in sensory neurons. <i>Channels</i> , 2019, 13, 147-152. | 1.5 | 6 |
| 71 | The investigation of the T-type calcium channel enhancer SAK3 in an animal model of TAF1 intellectual disability syndrome. <i>Neurobiology of Disease</i> , 2020, 143, 105006. | 2.1 | 5 |
| 72 | Conotoxin contulakin-G engages a neurotensin receptor 2/R-type calcium channel (Cav2.3) pathway to mediate spinal antinociception. <i>Pain</i> , 2022, 163, 1751-1762. | 2.0 | 5 |

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|----|--|-----|-----------|
| 73 | Comparison of quinazoline and benzoylpyrazoline chemotypes targeting the CaV1 \pm - β 2 interaction as antagonists of the N-type CaV2.2 channel. <i>Channels</i> , 2021, 15, 128-135. | 1.5 | 4 |
| 74 | Stereospecific Effects of Benzimidazolonepiperidine Compounds on T-Type Ca ²⁺ Channels and Pain. <i>ACS Chemical Neuroscience</i> , 2022, 13, 2035-2047. | 1.7 | 4 |
| 75 | 1-O-Acetylgeopyxin A, a derivative of a fungal metabolite, blocks tetrodotoxin-sensitive voltage-gated sodium, calcium channels and neuronal excitability which correlates with inhibition of neuropathic pain. <i>Molecular Brain</i> , 2020, 13, 73. | 1.3 | 3 |
| 76 | Evaluation of edonepic maleate as a CRMP2 inhibitor for pain relief. <i>Channels</i> , 2019, 13, 498-504. | 1.5 | 2 |
| 77 | Evaluation of the effects of the T-type calcium channel enhancer SAK3 in a rat model of TAF1 deficiency. <i>Neurobiology of Disease</i> , 2021, 149, 105224. | 2.1 | 1 |
| 78 | (399) A membrane-delimited N-myristoylated CRMP2 peptide aptamer inhibits CaV2.2 trafficking and reverses post-operative pain behaviors. <i>Journal of Pain</i> , 2015, 16, S75. | 0.7 | 0 |