

Scholarly activities
Anesthesiology and Perioperative Medicine
Academic year 2018-2019

Articles in Peer-Review Journals

1. Atlas G, Sheikh U. Cetacaine Spray as an Ex Vivo “Plastic-on-Plastic” Lubricant for Airway Management Procedures A New Use for Dipropylene Glycol? *J Clin Eng*, Sept 2018;43:119-21
2. Bekker A, Kloepping C, Collingwood S. Meloxicam in the management of post-operative pain: Narrative review. *J Anaesthesiol Clin Pharmacol* 2018;34:450-7.
3. Bekker A. Cannabis use and non-cancer chronic pain. Correspondence. *The Lancet Public Health*. October 2018;3:e468
4. Berger M, Schenning KJ, Brown CH 4th, Deiner SG, Whittington RA, Eckenhoff RG, Angst MS, Avramescu S, Bekker A, Brzezinski M, Crosby G, Culley DJ, Eckenhoff M, Eriksson LI, Evered L, Ibinson J, Kline RP, Kofke A, Ma D, Mathew JP, Maze M, Orser BA, Price CC, Scott DA, Silbert B, Su D, Terrando N, Wang DS, Wei H, Xie Z, Zuo Z; Perioperative Neurotoxicity Working Group. Best Practices for Postoperative Brain Health: Recommendations From the Fifth International Perioperative Neurotoxicity Working Group. *Anesth Analg* 2018;127:1406-13.
5. Cai W, Wu S, Pan Z, Xiao J, Li F, Cao J, Zang W, Tao Y-X. Disrupting interaction of PSD-95 with nNOS attenuates hemorrhage-induced thalamic pain. *Neuropharmacol* Oct 2018;141:238-48
6. Ellwood S, Shupper P, Kaufman A. A Retrospective Review of Spinal Radiofrequency Neurotomy Procedures in Patients with Metallic Posterior Spinal Instrumentation - Is it Safe? *Pain Physician* Sept 2018;21:E477-E482
7. Evered L, Silbert B, Knopman DS, Scott DA, DeKosky ST, Rasmussen LS, Oh ES, Crosby G, Berger M, Eckenhoff RG; Nomenclature Consensus Working Group. Recommendations for the Nomenclature of Cognitive Change Associated with Anaesthesia and Surgery-2018. *Anesthesiol* Nov 2018;129:872-9.
8. Fu R, Zuo W, Shiwalkar N, Mei Q, Fan Q, Chen X, Li J, Bekker A, Ye J-H. Alcohol Withdrawal Drives Depressive Behaviors by Activating Neurons in the Rostromedial Tegmental Nucleus. *Neuropsychopharmacol* 2019;0:1–12 PMID: 30928995
9. Gajewski M, Esochaghi S. Transient Asystole after Sugammadex Administration for Immediate Reversal of Deep Blockade while on Dexmedetomidine Infusion in a Super Obese Patient. *Case Rep Anesthesiol*, 2019 May 21;2019:2709568. doi: 10.1155/2019/2709568. PMID: 31263603
10. Gregor DM, Zuo W, Fu R, Bekker A, Ye J-H. Elevation of transient receptor potential vanilloid 1 function in the lateral habenula mediates aversive behaviors in alcohol-withdrawn rats. *Anesthesiol* 2019;130:592-608
11. Huang L, Zou Y, Wu S, Zhang H, Mao Q, Li J, Tao Y-X. Fn14 participates in neuropathic pain through NF-κB pathway in primary sensory neurons. *Mol Neurobiol*. 2019 Apr 11 DOI:10.1007/s12035-019-1545-y

12. Kang S, Li J, Zuo W, Chen P, Gregor D, Fu R, Han X, Bekker A, Ye J-H. Downregulation of M-channels in lateral habenula mediates hyperalgesia during alcohol withdrawal in rats. *Sci Rep* 2019;9:2714
13. Khariv V, Acioglu C, Ni L, Ratnayake A, Li L, Tao Y-X, Heary RF, Elkabes S. A link between plasma membrane calcium ATPase 2 (PMCA2), estrogen and estrogen receptor α signaling in mechanical pain. *Sci Rep* Nov 2018;8:17260
14. Liang L, Tao Y-X. Expression of acetyl-histone H3 and acetyl-histone H4 in dorsal root ganglion and spinal dorsal horn in rat chronic pain models. *Life Sci* Sept 2018;211:182-8
15. Li CD, Zhao JY, Chen JL, Lu JH, Zhang MB, Huang Q, Cao YN, Jia GL, Tao Y-X, Li J, Cao H. Mechanism of the JAK2/STAT3-CAV-1-NR2B signaling pathway in painful diabetic neuropathy. *Endocrine* 2019;64:55-66
16. Mao Q, Wu S, Gu X, Du S, Mo K, Sun L, Cao J, Bekker A, Chen L, Tao Y-X. DNMT3a-triggered downregulation of KCNK1 gene in primary sensory neurons contributes to paclitaxel-induced neuropathic pain. *Int J Cancer* 2019 Jan 26. DOI:10.1002/ijc.32155
17. Mei Y, Barrett JE, Hu H. Calcium release-activated calcium channels and pain. *Cell Calcium*. July 2018;74:180-5
18. Mo K, Wu S, Gu X, Xiong M, Cai W, Atianjoh FE, Jobe EE, Zhao X, Tu WF, Tao Y-X. MBD1 contributes to the genesis of acute pain and neuropathic pain by epigenetic silencing of *Oprm1* and *Kcna2* genes in primary sensory neurons. *J Neurosci* Sept 2018;38(46):9883-99
19. Murano T, Gajewski M, Anana M, Hillen M, Kunac A, Matassa D, Pompeo L, Kothari N. Mandated State Medical Licensing Board Disclosures Regarding Resident Performance. *J Grad Med Educ*, 2019 Jun;11(3):307-312. PMID: 31210862
20. Nadavaluru P, Hannaford S, Amin M, Park HJ, Xiong M. Anesthesia Considerations in Emergency C-Section and Perioperative Neonatal Resuscitation: A Case Report and Review of Literature. *Open Journal of Obstetrics and Gynecology* August 2018;8:803-811
21. Nan K, Han Y, Fang Q, Huang C, Yu L, Ge W, Xiang F, Tao Y-X, Cao H, Li J. HMGB1 gene silencing inhibits neuroinflammation via down-regulation of NF- κ B signaling in primary hippocampal neurons induced by A β 25-35. *Int Immunopharmacol* 2019;67:294-301
22. Shaparin N, Gritsenko K, Agrawal P, Kim S, Wahezi S, Gitkind A, Hascalovici J, Vydyanathan A, Bernstein J, Dizdarevic A, Mehta N, Kaufman A. A Retrospective Case Series of a Novel Spinal Cord Stimulator Trial Technique with Less Displacement and Migration of the Trial Leads. *Pain Research and Management* June 2019; Article ID 1236430, <https://doi.org/10.1155/2019/1236430>
23. Shantanu PA, Sharma D, Sharma M, Vaidya S, Sharma K, Kalia K, Tao Y-X, Shard A, Tiwari V. Kinesins: motor proteins as novel target for the treatment of chronic pain. *Mol Neurobiol* 2018 Sep 13. DOI:10.1007/s12035-018-1327-y
24. Wu S, Bono J, Tao Y-X. Long non-coding RNA: A potential target for neuropathic pain. *Expert Opin Ther Targets* 2019;23:15-20
25. Wu Q, Wei G, Ji F, Jia S, Wu S, Guo X, He L, Pan Z, Miao X, Mao Q, Yang Y, Cao M, Tao YX. TET1 overexpression mitigates neuropathic pain through rescuing the expression of μ -opioid receptor and Kv1.2 in the primary sensory neurons. *Neurotherapeutics* 2018 Dec 4. DOI:10.1007/s13311-018-00689-x

25. Xing F, Zhang W, Wen J, Bai L, Gu H, Li Z, Zhang J, Tao YX, Xu JT. TLR4/NF- κ B signaling activation in plantar tissue and dorsal root ganglion involves in the development of postoperative pain. *Mol Pain Oct 2018*;14:1744806918807050
26. Xiong M, Zheng Z-X, Hu ZR, Chen B-Y, Madubuko U, Grech D, Shao W-D, Zhang X-A, Xu B. Propofol-sparing effect of different concentrations of dexmedetomidine; Comparison of gender differences. *Anaesthetist 2019*;68:15–21
27. Yuan J, Wen J, Wu S, Mao Y, Mo K, Li Z, Su S, Gu H, Ai Y, Bekker A, Zhang W, Tao YX. Contribution of dorsal root ganglion octamer transcription factor 1 to neuropathic pain after peripheral nerve injury. *Pain 2019*;160:375-84
28. Zhang H, Deng Z, Zhang D, Li H, Zhang L, Niu J, Zuo W, Fu R, Fan L, Ye J-H, She J. High expression of leucine-rich repeat-containing 8A is indicative of a worse outcome of colon cancer patients by enhancing cancer cell growth and metastasis. *Oncol Rep July 2018*; 40:1275-86
29. Zuo QK, Tam KL, Bekker A, Zuo W, Ye J-H. Cannabinoids in Opioid Addiction Treatment: Pharmacological Mechanisms. *J Alcohol Drug Depend 2019*;7:325

Published Books/Book Chapters

1. Shiwalkar N, Zuo W, Bekker A, Ye J-H. The Role of the Lateral Habenula Circuits in Alcohol Use Disorder. In: *Neuroscience of Alcohol, Mechanisms and treatments*. 1st Edition. Editor Victor R. Preedy. Academic Press, 2019.
2. Antony C, Gajewski M. Transfusions. In: *BASIC Essentials: A Comprehensive Review for the Anesthesiology BASIC Exam*, 1st Edition, edited by Alopi M. Patel, Himani V. Bhatt. Chapter 38, p 191-96. Editor Bhatt Himani. Cambridge University Press, 2019.
3. Amin M, McCall D, Gajewski M. Multisystemic Injury. In: *Applied Anesthesiology Exam Board Review*. Ed. Joe Tran and Ruchir Gupta. NY, Oxford University Press, 2018
4. Guo X, Yao Y, Tao Y-X. Role of DNA methylation in chronic pain. In: *Translational Epigenetics Series Volume 7: Epigenetics of chronic pain*. Chapter 5, p 99-110. Edited by Guang Bai and Ke Ren. Academic Press, 2018.
5. Grech D, Haussman L, Dembek D. Anesthesia Techniques. In: *Anesthesia outside the Operating Room*, 2nd edition. Editors Richard D. Urman, Wendy L. Gross, Beverly K. Philip. Chapter 4, p 31-40. Oxford University Press, 2018.
6. Wu S, Tao Y-X. Noncoding RNA are new players in chronic pain. In: *Translational Epigenetics Series Volume 7: Epigenetics of chronic pain*. Chapter 9, p 157-68. Edited by Guang Bai and Ke Ren. Academic Press, 2018.
7. Xiong M. In: *Cases for Anesthesia Exam (English and Chinese version)* Editor Chuanyao Tong, MD (Wake Forest University). Chapter 7, p73-105. Publisher: WPCSH, 2018

Faculty Co-Investigators or PI's on Extramural Grant

1. Ye J-H, PI: 5R01 AA21657, Role of Lateral habenula in alcohol addiction. Ended at March 2019.
2. Ye J-H, PI: 5R01 AA022292 06, Role of Rostromedial Tegmental Nucleus In Alcohol Addiction. 2018 NIAAA. \$335,247
3. Ye J-H, Co-PI: 1R01AA023797-01A1, Deciphering the neural basis of alcohol use disorders using human and mouse neurons. 2016-2021. PI: Pang, Zhiping P
4. Ye J-H. Pending: NIH R01: Role of Lateral Habenula circuits in alcohol withdrawal syndromes. 9/2019-8/2023
5. Gajewski M, PI: A multi-center, randomized, double-blind, pilot study on the effect of intravenous multi-dose acetaminophen on readiness for discharge in patients undergoing surgery with general anesthesia. Sponsored by Mallinckrodt, Inc. ClinicalTrials.gov Identifier: NCT02832687
6. Hu H, PI: R01NS087033: Molecular mechanisms of store-operated calcium channels in pain. 9/14 – 7/19. Total direct costs: \$1,250,000
7. Tao Y-X, PI: R01 NS094664 "Epigenetic regulation of neuropathic pain: Role of DRG histone methyltransferase G9a" 02/01/2016-1/31/2021. \$1,254,570 Direct Cost (\$1,994,765 Total).
8. Tao Y-X, PI: R01 NS094224 "Dissection of a new spinal cord circuits in pain sensation" 07/01/2016-06/30/2021. \$624,570 Direct cost (\$883,065 Total).
9. Tao Y-X, PI Pending: R01 NS111553 "Role of dorsal root ganglion FTO, a RNA demethylase, in neuropathic pain". 07/01/2019-06/30/2024. \$393,223 Direct Cost (\$625,225 Total).
10. Discepolo D, PI: A simulated evaluation of the new ISO-6 connector for neuraxial procedures. Sponsored by Smith Medical, Inc.

Other Peer-Reviewed Scholarship*

Patents

1. "Pulsatility measurement and monitoring" Claiming the benefit of US Prov. Appl. No. 62/633,915 Inventors: Glen Atlas, ORC Ref. 2018-088 MBF Ref. 210953-9002-US02
2. "Injectable formulations of anesthetics". Xu, Xiaoyang; Tao, Yuan-Xiang. Application No: 62/753,997 Patent Date: 6/20/2018

Other research activities include: Abstracts, Invited talks, Grand Rounds.

Review for NIH grants:

NIH ad hoc member of the Neurotoxicology and Alcohol Study Section, Oct 24-25, 2018