



Cholawat Pacharinsak, DVM, PhD

Associate Professor of Comparative Medicine

Bio

BIO

Cholawat Pacharinsak, DVM, PhD Associate Professor and Director of Anesthesia, Pain Management, and Surgery, at Stanford University's Department of Comparative Medicine; he is a Diplomate of the American College of Veterinary Anesthesia and Analgesia (DACVAA). He received his DVM from Chulalongkorn University, Thailand and trained in an Anesthesiology/Pain Management residency program and received his Master's degree at Washington State University. He completed his PhD in Comparative and Molecular Biosciences from the University of Minnesota. Prior to arriving at Stanford, Dr. Pacharinsak was a faculty member in Anesthesiology and Pain Management at Michigan State University and Purdue University; and served as a Clinical Specialist at UCLA's David Geffen School of Medicine. His research focuses on understanding the neurobiology of cancer pain, chemotherapeutic-induced peripheral neuropathy, acute surgical pain models, and methods to improve clinical pain management e.g. sustained release analgesics supporting refinement. Research methodology includes electrophysiologic and behavioral techniques.

ACADEMIC APPOINTMENTS

- Associate Professor - University Medical Line, Comparative Medicine
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Assistant Professor, Stanford University, (2011- present)

HONORS AND AWARDS

- Board Certification, Diplomate American College of Veterinary Anesthesia and Analgesia (Dipl. ACVAA) (2010)

PROFESSIONAL EDUCATION

- Ph.D., University of Minnesota , Neurobiology of Pain
- Residency, Washington State University , Anesthesiology and Pain Management
- M.S., Washington State University , Pain Management
- D.V.M., Chulalongkorn University , Veterinary Medicine

Teaching

COURSES

2021-22

- Ouch it Hurts! The Comparative Neurobiology of Pain: COMPMED 89Q (Win)
- The Neurobiology of Pain: COMPMED 89SS (Sum)

2020-21

- Ouch it Hurts! The Comparative Neurobiology of Pain: COMPMED 89Q (Win)

2019-20

- Ouch it Hurts! The Comparative Neurobiology of Pain: COMPMED 89Q (Win)

2018-19

- Ouch it Hurts! The Comparative Neurobiology of Pain: COMPMED 89Q (Win)
- Research Biomethodology for Laboratory Animal Science: COMPMED 202 (Aut, Win, Spr)

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Anesthesia (Fellowship Program)
- Cardiovascular Medicine (Fellowship Program)

Publications

PUBLICATIONS

- **Extended-release Buprenorphine, an FDA-indexed Analgesic, Attenuates Mechanical Hypersensitivity in Rats (*Rattus norvegicus*).** *Journal of the American Association for Laboratory Animal Science : JAALAS*
Alamaw, E. D., Franco, B. D., Jampachaisri, K., Huss, M. K., Pacharinsak, C.
1800; 61 (1): 81-88
- **Mouse Anesthesia: The Art and Science.** *ILAR journal*
Navarro, K. L., Huss, M., Smith, J. C., Sharp, P., Marx, J. O., Pacharinsak, C.
2021
- **Lipid bound extended release buprenorphine (high and low doses) and sustained release buprenorphine effectively attenuate post-operative hypersensitivity in an incisional pain model in mice (*Mus musculus*).** *Animal models and experimental medicine*
Navarro, K., Jampachaisri, K., Huss, M., Pacharinsak, C.
2021; 4 (2): 129-137
- **Tiletamine/zolazepam and dexmedetomidine with tramadol provide effective general anesthesia in rats.** *Animal models and experimental medicine*
Limprasutr, V., Sharp, P., Jampachaisri, K., Pacharinsak, C., Durongphongtorn, S.
2021; 4 (1): 40-46
- **Sustained release buprenorphine effectively attenuates postoperative hypersensitivity in an incisional pain model in neonatal rats (*Rattus norvegicus*).** *PLoS one*
Blaney, A. n., Jampachaisri, K. n., Huss, M. K., Pacharinsak, C. n.
2021; 16 (2): e0246213
- **Buprenorphine, but not lidocaine, effectively attenuates post-operative thermal hypersensitivity in an incisional model in neonatal rats (*Rattus norvegicus*).** *SCANDINAVIAN JOURNAL OF LABORATORY ANIMAL SCIENCE*
Katz, E. M., Huss, M. K., Jampachaisri, K., Pacharinsak, C.
2021; 47 (1): 1-11
- **The Stability and Efficacy of Tricaine Methanesulfonate (MS222) Solution After Long-Term Storage** *JOURNAL OF THE AMERICAN ASSOCIATION FOR LABORATORY ANIMAL SCIENCE*
Katz, E. M., Chu, D. K., Casey, K. M., Jampachaisri, K., Felt, S. A., Pacharinsak, C.
2020; 59 (4): 393-400
- **Effects of Standard and Sustained-release Buprenorphine on the Minimum Alveolar Concentration of Isoflurane in C57BL/6 Mice.** *Journal of the American Association for Laboratory Animal Science : JAALAS*
LaTourette, P. C., David, E. M., Pacharinsak, C., Jampachaisri, K., Smith, J. C., Marx, J. O.
2020; 59 (3): 298-304
- **High dose propofol effectively euthanizes zebrafish (*Danio rerio*)** *THAI JOURNAL OF VETERINARY MEDICINE*
Chu, D. K., Jampachaisri, K., Pacharinsak, C.

2020; 50 (1): 13–16

- **Use of Flavored Tablets of Gabapentin and Carprofen to Attenuate Postoperative Hypersensitivity in an Incisional Pain Model in Rats (*Rattus norvegicus*).** *Journal of the American Association for Laboratory Animal Science : JAALAS*
Zude, B. P., Jampachaisri, K., Pacharinsak, C.
2020; 59 (2): 163–69
- **Continuous Rate Infusion of Alfaxalone during Ketamine-Xylazine Anesthesia in Rats.** *Journal of the American Association for Laboratory Animal Science : JAALAS*
Heng, K. n., Marx, J. O., Jampachairsi, K. n., Huss, M. K., Pacharinsak, C. n.
2020; 59 (2): 170–75
- **Doppler and oscillometric mean blood pressure best represent direct blood pressure measurements in anesthetized rhesus macaques (*Macaca mulatta*).** *Journal of medical primatology*
Kang, S. C., Jampachaisri, K., Pacharinsak, C.
2019
- **Influence of Pain and Analgesia on Orthopedic and Wound-healing Models in Rats and Mice.** *Comparative medicine*
Huss, M. K., Felt, S. A., Pacharinsak, C. n.
2019
- **Use of Liposomal Bupivacaine for Postoperative Analgesia in an Incisional Pain Model in Rats (*Rattus norvegicus*).** *Journal of the American Association for Laboratory Animal Science : JAALAS*
Kang, S. C., Jampachaisri, K., Seymour, T. L., Felt, S. A., Pacharinsak, C.
2017; 56 (1): 63-68
- **Handbook of Laboratory Animal Anesthesia and Pain Management: Rodents**
edited by Pacharinsak, C., Smith, J. C.
CRC Press Taylor & Francis Group.2017
- **Postoperative Analgesia Due to Sustained-Release Buprenorphine, Sustained-Release Meloxicam, and Carprofen Gel in a Model of Incisional Pain in Rats (*Rattus norvegicus*)** *JOURNAL OF THE AMERICAN ASSOCIATION FOR LABORATORY ANIMAL SCIENCE*
Seymour, T. L., Adams, S. C., Felt, S. A., Jampachaisri, K., Yeomans, D. C., Pacharinsak, C.
2016; 55 (3): 300-305
- **The Physiologic Effects of Isoflurane, Sevoflurane, and Hypothermia Used for Anesthesia in Neonatal Rats (*Rattus norvegicus*).** *Journal of the American Association for Laboratory Animal Science*
Huss, M. K., Chum, H. H., Chang, A. G., Jampachairsi, K., Pacharinsak, C.
2016; 55 (1): 83-88
- **Mouse anesthesia and analgesia.** *Current protocols in mouse biology*
Adams, S., Pacharinsak, C.
2015; 5 (1): 51-63
- **Antinociceptive Effects of Sustained-Release Buprenorphine in a Model of Incisional Pain in Rats (*Rattus norvegicus*).** *Journal of the American Association for Laboratory Animal Science*
Chum, H. H., Jampachairsri, K., McKeon, G. P., Yeomans, D. C., Pacharinsak, C., Felt, S. A.
2014; 53 (2): 193-197
- **Mechanisms of Cancer Pain** *Pain Management in Veterinary Practice*
Pacharinsak, C., Beitz, A. J.
edited by Egger, C. M., Love, L., Doherty, T.
2013
- **Pain Management** *Pocket Handbook of Nonhuman Primate Clinical Medicine*
Pacharinsak, C., Sharp, P.
edited by Courtney, A.
CRC Press Taylor & Francis Group.2013: 35-54
- **Anesthesia in Nonhuman Primates** *Pocket Handbook of Nonhuman Primate Clinical Medicine*
Pacharinsak, C., Sharp, P.

edited by Courtney, A.

CRC Press Taylor & Francis Group.2013; 1ST: 1-34

- **Endotracheal intubation in swine** *LAB ANIMAL*
Chum, H., Pacharinsak, C.
2012; 41 (11): 309-311
- **Microfluidic Single-Cell Analysis Shows That Porcine Induced Pluripotent Stem Cell-Derived Endothelial Cells Improve Myocardial Function by Paracrine Activation** *CIRCULATION RESEARCH*
Gu, M., Nguyen, P. K., Lee, A. S., Xu, D., Hu, S., Plews, J. R., Han, L., Huber, B. C., Lee, W. H., Gong, Y., de Almeida, P. E., Lyons, J., Ikeno, et al
2012; 111 (7): 882-893
- **Analgesic Effects of Sustained Release Buprenorphine in an Incisional Model of Hyperalgesia in Rats (*Rattus norvegicus*)**
Chum, H., McKeon, G., Yeomans, D. C., Jampachaisri, K., Pacharinsak, C., Felt, S.
AMER ASSOC LABORATORY ANIMAL SCIENCE.2012: 692-92
- **Differential modulation of neurons in the rostral ventromedial medulla by neurokinin-1 receptors** *JOURNAL OF NEUROPHYSIOLOGY*
Brink, T. S., Pacharinsak, C., Khasabov, S. G., Beitz, A. J., Simone, D. A.
2012; 107 (4): 1210-1221
- **Preclinical Derivation and Imaging of Autologously Transplanted Canine Induced Pluripotent Stem Cells** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Lee, A. S., Xu, D., Plews, J. R., Nguyen, P. K., Nag, D., Lyons, J. K., Han, L., Hu, S., Lan, F., Liu, J., Huang, M., Narsinh, K. H., Long, et al
2011; 286 (37): 32697-32704
- **Comparison of rectal and tympanic core body temperature measurement in adult Guyanese squirrel monkeys (*Saimiri sciureus sciureus*)** *JOURNAL OF MEDICAL PRIMATOLOGY*
Long, C. T., Pacharinsak, C., Jampachaisri, K., McKeon, G. P., Howard, A. M., Albertelli, M. A., Felt, S. A.
2011; 40 (2): 135-141
- **Analgesic Effects of Tramadol, Tramadol-Gabapentin, and Buprenorphine in an Incisional Model of Pain in Rats (*Rattus norvegicus*)** *JOURNAL OF THE AMERICAN ASSOCIATION FOR LABORATORY ANIMAL SCIENCE*
McKeon, G. P., Pacharinsak, C., Long, C. T., Howard, A. M., Jampachaisri, K., Yeomans, D. C., Felt, S. A.
2011; 50 (2): 192-197
- **Cannabinoid Modulation of Cutaneous A delta Nociceptors During Inflammation** *JOURNAL OF NEUROPHYSIOLOGY*
Potenzieri, C., Brink, T. S., Pacharinsak, C., Simone, D. A.
2008; 100 (5): 2794-2806
- **NK-1 receptors in the rostral ventromedial medulla contribute to hyperalgesia produced by intraplantar injection of capsaicin** *PAIN*
Pacharinsak, C., Khasabov, S. G., Beitz, A. J., Simone, D. A.
2008; 139 (1): 34-46
- **Animal models of cancer pain** *COMPARATIVE MEDICINE*
Pacharinsak, C., Beitz, A.
2008; 58 (3): 220-233
- **Effective Pain Management in Small Animals** *15th Congress of the Federation-of-Asian-Veterinary-Association/FAV-OIE Joint Symposium on Emerging Diseases*
Pacharinsak, C.
THAI VETERINARY MED ASSOC ROYAL PATRONAGE.2008: S85-S85
- **Postoperative analgesia in dogs receiving epidural morphine plus medetomidine** *JOURNAL OF VETERINARY PHARMACOLOGY AND THERAPEUTICS*
Pacharinsak, C., Greene, S. A., Keegan, R. D., Kalivas, P. W.
2003; 26 (1): 71-77