

Stanford



David Clark

Professor of Anesthesiology, Perioperative and Pain Medicine at the Palo Alto Veterans Affairs Health Care System

 NIH Biosketch available Online

Bio

BIO

After completion of training I came to Stanford University in 1998. Since that time I have been involved in a number of clinical and research activities. I oversee the Pain Service at the Palo Alto VA hospital where I am involved in the care of patients with both acute and chronic pain. I am active both in the clinic and on a number of committees dedicated to improving pain management for veterans. Much of my remaining time is spent supervising a research laboratory. There we are pursuing several projects related to the questions of why pain sometimes becomes chronic after injuries and why opioids lose their effectiveness over time when used to treat chronic pain. We would like to find ways to maximize functional recovery after surgery and other forms of trauma while minimizing the risks of analgesic use. This work involves local, national and international collaborations.

ACADEMIC APPOINTMENTS

- Professor - Med Center Line, Anesthesiology, Perioperative and Pain Medicine
- Member, Bio-X
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Director, Pain Relief Service, VAPAHCS, (1998-2018)
- Vice-Chair for Research, Department of Anesthesia, Perioperative Medicine and Pain, (2012- present)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Handling Editor, Anesthesiology (2013 - present)
- Chairman, VAPAHCS Research and Development Committee (2013 - present)
- Member, Board of Directors, Palo Alto Institute for Research and Education (PAVIR) (2014 - present)
- Member, Association of University Anesthesiologists (2006 - present)
- Member, American Pain Society (1998 - present)
- Member, International Association for the Study of Pain (1995 - present)
- Member, International Anesthesia Research Society (1993 - present)
- Member, American Society of Anesthesiologists (1993 - present)

PROFESSIONAL EDUCATION

- Board Certification, ABA , Pain Management (1998)
- Board Certification, ABA , Anesthesiology (1996)

- MD, Vanderbilt University , Medicine (1992)
- PhD, Vanderbilt University , Pharmacology (1991)
- BA, Carleton College , Chemistry (1985)

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Chris Rishel

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Anesthesia (Fellowship Program)

Publications

PUBLICATIONS

- **[EXPRESS] Autoinflammatory and Autoimmune Contributions to Complex Regional Pain Syndrome.** *Molecular pain*
Clark, J. D., Tawfik, V., Tajerian, M., Kingery, W.
2018: 1744806918799127
- **Just the FACTS: The Role of Diagnostic Blocks in Lumbar Facet Interventions.** *Anesthesiology*
Brummett, C. M., Clark, J. D.
2018
- **Exercise Reverses Nociceptive Sensitization, Upregulated Neuropeptide Signaling, Inflammatory Changes, Anxiety, and Memory Impairment in a Mouse Tibia Fracture Model.** *Anesthesiology*
Shi, X., Guo, T., Li, W., Sahbaie, P., Rice, K. C., Sulima, A., Clark, J. D., Kingery, W. S.
2018
- **Chronic Pain After Traumatic Brain Injury: Pathophysiology and Pain Mechanisms** *PAIN MEDICINE*
Irvine, K., Clark, J.
2018; 19 (7): 1315–33
- **Nociceptive and Cognitive Changes in a Murine Model of Polytrauma.** *The journal of pain : official journal of the American Pain Society*
Sahbaie, P., Tajerian, M., Yang, P., Irvine, K. A., Huang, T., Luo, J., Wyss-Coray, T., Clark, J. D.
2018
- **Reply to Dr Peltz.** *Journal of addiction medicine*
Chu, L. F., Sun, J., Clemenson, A., Erlendson, M. J., Rico, T., Cornell, E., Obasi, H., Sayyid, Z. N., Encisco, E. M., Yu, J., Gamble, J. G., Clark, J. D.
2018; 12 (3): 252–53
- **Traumatic Brain Injury Disrupts Pain Signaling in the Brainstem and Spinal Cord** *JOURNAL OF NEUROTRAUMA*
Irvine, K., Sahbaie, P., Liang, D., Clark, J.
2018
- **Neuropeptide regulation of adaptive immunity in the tibia fracture model of complex regional pain syndrome** *JOURNAL OF NEUROINFLAMMATION*
Li, W., Guo, T., Shi, X., Birklein, F., Schlereth, T., Kingery, W. S., Clark, J.
2018; 15: 105
- **Ondansetron does not prevent physical dependence in patients taking opioid medications chronically for pain control.** *Drug and alcohol dependence*
Chu, L. F., Rico, T., Cornell, E., Obasi, H., Encisco, E. M., Vertelney, H., Gamble, J. G., Crawford, C. W., Sun, J., Clemenson, A., Erlendson, M. J., Okada, R., Carroll, et al
2018; 183: 176–83
- **America's Opioid Epidemic: Supply and Demand Considerations** *ANESTHESIA AND ANALGESIA*
Clark, D. J., Schumacher, M. A.

2017; 125 (5): 1667-74

- **Nervous system delivery of antilyso-phosphatidic acid antibody by nasal application attenuates mechanical allodynia after traumatic brain injury in rats** *PAIN*
Eisenried, A., Meidahl, A. N., Klukinov, M., Tzabazis, A. Z., Sabbadini, R. A., Clark, J., Yeomans, D. C.
2017; 158 (11): 2181-88
- **Palonosetron and hydroxyzine pre-treatment reduces the objective signs of experimentally-induced acute opioid withdrawal in humans: a double-blinded, randomized, placebo-controlled crossover study** *The American Journal of Drug and Alcohol Abuse*
Erlendson, M., D'Arcy, N., Encisco, E., Yu, J., Rincon-Cruz, L., Peltz, G., Clark, D. J., Chu, L. F.
2016: 1-9
- **Extracellular superoxide dismutase is important for hippocampal neurogenesis and preservation of cognitive functions after irradiation** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Zou, Y., Corniola, R., Leu, D., Khan, A., Sahbaie, P., Chakraborti, A., Clark, D. J., Fike, J. R., Huang, T.
2012; 109 (52): 21522-21527
- **Modulation of remifentanyl-induced postinfusion hyperalgesia by the beta-blocker propranolol in humans** *PAIN*
Chu, L. F., Cun, T., Ngai, L. K., Kim, J. E., Zamora, A. K., Young, C. A., Angst, M. S., Clark, D. J.
2012; 153 (5): 974-981
- **Collecting and measuring wound exudate biochemical mediators in surgical wounds.** *Journal of visualized experiments : JoVE*
Carvalho, B., Clark, D. J., Yeomans, D., Angst, M. S.
2012
- **Continuous Subcutaneous Instillation of Bupivacaine Compared to Saline Reduces Interleukin 10 and Increases Substance P in Surgical Wounds After Cesarean Delivery** *ANESTHESIA AND ANALGESIA*
Carvalho, B., Clark, D. J., Yeomans, D. C., Angst, M. S.
2010; 111 (6): 1452-1459
- **Calcitonin-gene-related peptide stimulates stromal cell osteogenic differentiation and inhibits RANKL induced NF-kappa B activation, osteoclastogenesis and bone resorption** *BONE*
Wang, L., Shi, X., Zhao, R., Halloran, B. P., Clark, D. J., Jacobs, C. R., Kingery, W. S.
2010; 46 (5): 1369-1379
- **Designing an automated clinical decision support system to match clinical practice guidelines for opioid therapy for chronic pain** *IMPLEMENTATION SCIENCE*
Trafton, J. A., Martins, S. B., Michel, M. C., Wang, D., Tu, S. W., Clark, D. J., Elliott, J., Vucic, B., Balt, S., Clark, M. E., Sintek, C. D., Rosenberg, J., Daniels, et al
2010; 5
- **Substance P stimulates bone marrow stromal cell osteogenic activity, osteoclast differentiation, and resorption activity in vitro** *BONE*
Wang, L., Zhao, R., Shi, X., Wei, T., Halloran, B. P., Clark, D. J., Jacobs, C. R., Kingery, W. S.
2009; 45 (2): 309-320
- **Pentoxifylline attenuates nociceptive sensitization and cytokine expression in a tibia fracture rat model of complex regional pain syndrome** *EUROPEAN JOURNAL OF PAIN*
Wei, T., Sabsovich, I., Guo, T., Shi, X., Zhao, R., Li, W., Geis, C., Sommer, C., Kingery, W. S., Clark, D. J.
2009; 13 (3): 253-262
- **TNF signaling contributes to the development of nociceptive sensitization in a tibia fracture model of complex regional pain syndrome type I** *PAIN*
Sabsovich, I., Guo, T., Wei, T., Zhao, R., Li, X., Clark, D. J., Geis, C., Sommer, C., Kingery, W. S.
2008; 137 (3): 507-519
- **Opioid-induced hyperalgesia in humans - Molecular mechanisms and clinical considerations** *CLINICAL JOURNAL OF PAIN*
Chu, L. F., Angst, M. S., Clark, D.
2008; 24 (6): 479-496
- **Local and systemic release of cytokines, nerve growth factor, prostaglandin E2, and substance P in incisional wounds and serum following cesarean delivery** *JOURNAL OF PAIN*
Carvalho, B., Clark, D. J., Angst, M. S.

2008; 9 (7): 650-657

- **Collecting and measuring nociceptive and inflammatory mediators in surgical wounds.** *Journal of visualized experiments : JoVE*
Carvalho, B., Clark, D. J., Yeomans, D., Angst, M. S.
2008
- **Genetic variants of the P-glycoprotein gene Abcb1b modulate opioid-induced hyperalgesia, tolerance and dependence** *PHARMACOGENETICS AND GENOMICS*
Liang, D., Liao, G., Lighthall, G. K., Peltz, G., Clark, D. J.
2006; 16 (11): 825-835
- **Characteristics and treatment of headache after traumatic brain injury - A focused review** *AMERICAN JOURNAL OF PHYSICAL MEDICINE & REHABILITATION*
Lew, H. L., Lin, P., Fuh, J., Wang, S., Clark, D. J., Walker, W. C.
2006; 85 (7): 619-627
- **Persistence of rock-derived nutrients in the wet tropical forests of La Selva, Costa Rica** *ECOLOGY*
Porder, S., Clark, D. A., Vitousek, P. M.
2006; 87 (3): 594-602
- **Latent plaque rupture in a patient undergoing stenting for acute coronary syndrome and diffuse coronary disease: A case report and review of literature** *CATHETERIZATION AND CARDIOVASCULAR INTERVENTIONS*
Koizumi, T., Wilson, A. M., Clark, D. A., Fitzgerald, P. J.
2006; 67 (2): 241-245
- **Opioid tolerance and hyperalgesia in chronic pain patients after one month of oral morphine therapy: A preliminary prospective study** *JOURNAL OF PAIN*
Chu, L. F., Clark, D. J., Angst, M. S.
2006; 7 (1): 43-48
- **Transient disruption of ventrolateral prefrontal cortex during verbal encoding affects subsequent memory performance** *JOURNAL OF NEUROPHYSIOLOGY*
Kahn, I., Pascual-Leone, A., Theoret, H., Fregni, F., Clark, D., Wagner, A. D.
2005; 94 (1): 688-698
- **Orientation of bound ligands in mannose-binding proteins - Implications for multivalent ligand recognition** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Ng, K. K., Kolatkar, A. R., Park-Snyder, S., Feinberg, H., Clark, D. A., Drickamer, K., Weis, W. I.
2002; 277 (18): 16088-16095
- **Flying pigs and other possibilities** *Catheterization and cardiovascular interventions : official journal of the Society for Cardiac Angiography & Interventions*
Clark, D. A.
2000; 51 (1): 10
- **BALLOON ANGIOPLASTY RESULTS IN INCREASED SEGMENTAL CORONARY DISTENSIBILITY - A LIKELY MECHANISM OF PERCUTANEOUS TRANSLUMINAL CORONARY ANGIOPLASTY** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Botas, J., Clark, D. A., Pinto, F., Chenzbraun, A., Fischell, T. A.
1994; 23 (5): 1043-1052
- **THE ASSESSMENT AND TREATMENT OF PERFORMANCE ANXIETY IN MUSICIANS** *AMERICAN JOURNAL OF PSYCHIATRY*
Clark, D. B., Agras, W. S.
1991; 148 (5): 598-605
- **SURREPTITIOUS DRUG-USE BY PATIENTS IN A PANIC DISORDER STUDY** *AMERICAN JOURNAL OF PSYCHIATRY*
Clark, D. B., Taylor, C. B., Roth, W. T., Hayward, C., Ehlers, A., MARGRAF, J., Agras, W. S.
1990; 147 (4): 507-509
- **CARDIOVASCULAR AND SYMPTOMATIC REDUCTION EFFECTS OF ALPRAZOLAM AND IMPRAMINE IN PATIENTS WITH PANIC DISORDER - RESULTS OF A DOUBLE-BLIND, PLACEBO-CONTROLLED TRIAL** *JOURNAL OF CLINICAL PSYCHOPHARMACOLOGY*
Taylor, C. B., Hayward, C., King, R., Ehlers, A., MARGRAF, J., Maddock, R., Clark, D., Roth, W. T., Agras, W. S.
1990; 10 (2): 112-118

- **TONIC AROUSAL AND ACTIVITY - RELATIONSHIPS TO PERSONALITY AND PERSONALITY-DISORDER TRAITS IN PANIC PATIENTS** *PSYCHIATRY RESEARCH*

KING, R. J., BAYON, E. P., Clark, D. B., Taylor, C. B.
1988; 25 (1): 65-72

- **Treadmill exercise test and ambulatory measures in panic attacks.** *American journal of cardiology*

Taylor, C. B., King, R., Ehlers, A., MARGRAF, J., Clark, D., Hayward, C., Roth, W. T., Agras, S.
1987; 60 (18): 48J-52J