

# Stanford

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## Richard A. Jaffe

Professor of Anesthesiology, Perioperative and Pain Medicine and, by courtesy, of Neurosurgery at the Stanford University Medical Center

### CLINICAL OFFICES

- **Anesthesia**

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### ACADEMIC CONTACT INFORMATION

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### Bio

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#### CLINICAL FOCUS

- Neurosurgical Anesthesia
- Anesthesia

#### ACADEMIC APPOINTMENTS

- Professor - Med Center Line, Anesthesiology, Perioperative and Pain Medicine
- Professor - Med Center Line (By courtesy), Neurosurgery
- Member, Bio-X

#### PROFESSIONAL EDUCATION

- Residency: Stanford University School of Medicine Registrar (1988) CA
- Internship: St Vincent Hospital and Medical Center (1986) OR
- Board Certification: Anesthesia, American Board of Anesthesiology (1990)
- Medical Education: University Of Miami - School of Medicine (1985) FL
- M.D., University of Miami , Medicine (1985)
- Ph.D., Univ California, San Francisco , Neurophysiology (1977)

### Research & Scholarship

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#### CURRENT RESEARCH AND SCHOLARLY INTERESTS

My clinical and laboratory research activities are currently focused on developing new and sensitive means for detecting the onset of cerebral ischemia using both non-invasive electrophysiological and non-invasive optical techniques. The goal of this research is to provide new monitoring techniques to guide the clinical management of patients in which cerebral perfusion or other critical organ perfusion may be compromised.

Additional laboratory research activities are focused on developing an understanding of the mechanisms which underlie differential nerve block, and on identifying the sites of local anesthetic and opiate action within the spinal cord. The objective is to enable clinicians to provide regional analgesia without the many unwanted side effects of opiates and conventional local anesthetics. Achieving this goal could substantially improve pain management techniques and the practice of regional anesthesia.

## Teaching

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### GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Anesthesia (Fellowship Program)

## Publications

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### PUBLICATIONS

- **Cerebral Oximetry Fails as a Monitor of Brain Perfusion in Cardiac Surgery: A Case Report.** *A&A practice*  
McAvoy, J., Jaffe, R., Brock-Utne, J., Lopez, J., Brodt, J.  
2019
- **Acetaminophen Does Not Reduce Postoperative Opiate Consumption in Patients Undergoing Craniotomy for Cerebral Revascularization: A Randomized Control Trial.** *Cureus*  
Burbridge, M. A., Stone, S. A., Jaffe, R. A.  
2019; 11 (1): e3863
- **Frameless Robot-Assisted Deep Brain Stimulation Surgery: An Initial Experience.** *Operative neurosurgery (Hagerstown, Md.)*  
Ho, A. L., Pendharkar, A. V., Brewster, R., Martinez, D. L., Jaffe, R. A., Xu, L. W., Miller, K. J., Halpern, C. H.  
2019
- **Performance of Litholyme compared with Sodasorb carbon dioxide absorbents in a standard clinical setting.** *British journal of anaesthesia*  
Fowler, C. J., Burbridge, M. A., Jaffe, R. A., Brock-Utne, J. G.  
2019; 122 (1): e11–e12
- **Effect of Head Rotation on Jugular Vein Patency Under General Anesthesia.** *The Canadian journal of neurological sciences. Le journal canadien des sciences neurologiques*  
Burbridge, M. A., Min, J. G., Jaffe, R. A.  
2019: 1–3
- **Performance of Litholyme (TM) compared with Sodasorb (TM) carbon dioxide absorbents in a standard clinical setting** *BRITISH JOURNAL OF ANAESTHESIA*  
Fowler, C. J., Burbridge, M. A., Jaffe, R. A., Brock-Utne, J. G.  
2019; 122 (1): E11–E12
- **Inaccurate Blood Pressure Readings in the Intensive Care Unit: An Observational Study.** *Cureus*  
Tse, B., Burbridge, M. A., Jaffe, R. A., Brock-Utne, J.  
2018; 10 (12): e3716
- **Spiking of intravenous bags does not cause time-dependent microbial contamination: a preliminary report.** *Infection control and hospital epidemiology*  
Brock-Utne, J. G., Smith, S. C., Banaei, N., Chang, S., Alejandro-Harper, D., Jaffe, R. A.  
2018: 1–2
- **Excipients in Anesthesia Medications.** *Anesthesia and analgesia*  
Burbridge, M. A., Jaffe, R. A.  
2018
- **The use of end-tidal argon to detect venous air embolism: foiled by "fake oxygen!"** *Journal of clinical monitoring and computing*  
McAvoy, J., Jaffe, R., Burbridge, M., Schertz, T., Brock-Utne, J.  
2018
- **Intraoperative Tonic-Clonic Seizure Under General Anesthesia Captured by Electroencephalography: A Case Report.** *A & A case reports*

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- Burbridge, M. A., Jaffe, R. A., Doufas, A. G., Lopez, J. R.  
2017
- **Intraoperative Tonic-Clonic Seizure Under General Anesthesia Captured by Electroencephalography: A Case Report** *A and A Case Reports*  
Burbridge, M. A., Jaffe, R. A., Doufas, A. G., Lopez, J. R.  
2017: 9–12
  - **High Flow Nasal Cannula, A Novel Approach to Airway Management in Awake Craniotomies.** *Journal of neurosurgical anesthesia*  
Smith, S. C., Burbridge, M., Jaffe, R.  
2017
  - **Case Report of an Awake Craniotomy in a Patient With Eisenmenger Syndrome.** *A & A case reports*  
Heifets, B. D., Crawford, E., Jackson, E., Brodt, J., Jaffe, R. A., Burbridge, M. A.  
2017
  - **Ventriculoperitoneal Shunt Insertion Under Monitored Anesthesia Care in a Patient With Severe Pulmonary Hypertension.** *A & A case reports*  
Burbridge, M. A., Brodt, J., Jaffe, R. A.  
2016; 7 (2): 27-29
  - **Exparel®: A New Local Anesthetic with Special Safety Concerns.** *Anesthesia and analgesia*  
Burbridge, M., Jaffe, R. A.  
2015; 121 (4): 1113-1114
  - **Extracorporeal membrane oxygenation for cardiac arrest during moyamoya cerebral revascularization surgery: case report** *JOURNAL OF NEUROSURGERY*  
Choudhri, O., Shah, A., Basarab-Tung, J., Jaffe, R. A., Steinberg, G. K.  
2015; 123 (3): 693-698
  - **Extracorporeal membrane oxygenation for cardiac arrest during moyamoya cerebral revascularization surgery: case report.** *Journal of neurosurgery*  
Choudhri, O., Shah, A., Basarab-Tung, J., Jaffe, R. A., Steinberg, G. K.  
2015; 123 (3): 693-698
  - **A Case Illustrating the Costs of Quality Improvement: Nine Months to Move Needles and Syringes on the Anesthesia Cart.** *A & A case reports*  
Quick, A. K., Macario, A., Brock-Utne, J. G., Jaffe, R. A., Kadry, B.  
2015; 5 (5): 88-90
  - **Intraoperative cardiac arrest: was it the ACE inhibitor?** *JOURNAL OF CLINICAL ANESTHESIA*  
Bjerregaard, J., Jaffe, R. A.  
2014; 26 (1): 62-64
  - **Human Subthalamic Neuron Spiking Exhibits Subtle Responses to Sedatives** *ANESTHESIOLOGY*  
MacIver, M. B., Bronte-Stewart, H. M., Henderson, J. M., Jaffe, R. A., Brock-Utne, J. G.  
2011; 115 (2): 254-264
  - **Failure to Ventilate with the Drager Apollo (R) Anesthesia Workstation** *ANESTHESIOLOGY*  
Hilton, G., Moll, V., Zumaran, A. A., Jaffe, R. A., Brock-Utne, J. G.  
2011; 114 (5): 1238-1240
  - **Perioperative Hypothermia (33 degrees C) Does Not Increase the Occurrence of Cardiovascular Events in Patients Undergoing Cerebral Aneurysm Surgery Findings from the Intraoperative Hypothermia for Aneurysm Surgery Trial** *ANESTHESIOLOGY*  
Nguyen, H. P., Zaroff, J. G., Bayman, E. O., Gelb, A. W., Todd, M. M., Hindman, B. J.  
2010; 113 (2): 327-342
  - **No Association between Intraoperative Hypothermia or Supplemental Protective Drug and Neurologic Outcomes in Patients Undergoing Temporary Clipping during Cerebral Aneurysm Surgery Findings from the Intraoperative Hypothermia for Aneurysm Surgery Trial** *ANESTHESIOLOGY*  
Hindman, B. J., Bayman, E. O., Pfisterer, W. K., Torner, J. C., Todd, M. M.  
2010; 112 (1): 86-101
  - **A POOR CORRELATION EXISTS BETWEEN OSCILLOMETRIC AND RADIAL ARTERIAL BLOOD PRESSURE AS MEASURED BY THE PHILIPS MP90 MONITOR** *JOURNAL OF CLINICAL MONITORING AND COMPUTING*  
Mireles, S. A., Jaffe, R. A., Drover, D. R., Brock-Utne, J. G.
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2009; 23 (3): 169-174

- **Does a delay in performing an activated clotting (ACT) test really matter? A study in nonheparinized blood and a single ACT machine.** *The Journal of extra-corporeal technology*  
Philip, B. M., Brock-Utne, J. G., Lemmens, H. J., Jaffe, R. A., Shuttleworth, P. E.  
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- **The dromedary sign - An unusual capnograph tracing** *ANESTHESIOLOGY*  
Jaffe, R. A., Talavera, J. A., Hah, J. M., Brock-Utne, J. G.  
2008; 109 (1): 149-150
- **Effects of intraoperative hypothermia on neuropsychological outcomes after intracranial aneurysm surgery** *ANNALS OF NEUROLOGY*  
Anderson, S. W., Todd, M. M., Hindman, B. J., Clarke, W. R., Torner, J. C., Tranel, D., Yoo, B., Weeks, J., Manzel, K. W., Samra, S.  
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Todd, M. M., Hindman, B. J., Clarke, W. R., Torner, J. C., Todd, M., Hindman, B., Clarke, W., Chaloner, K., Torner, J., Davis, P., Howard, M., Tranel, D., Anderson, et al  
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- **Wrist hyperextension leads to median nerve conduction block - Implications for intra-arterial catheter placement** *ANESTHESIOLOGY*  
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- **Downregulation of cerebrospinal fluid production in patients with chronic hydrocephalus** *JOURNAL OF NEUROSURGERY*  
Silverberg, G. D., Huhn, S., Jaffe, R. A., Chang, S. D., Saul, T., Heit, G., Von Essen, A., Rubenstein, E.  
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- **Advances in understanding protection from cerebral ischemia.** *Current opinion in anaesthesiology*  
Giffard, R. G., Jaffe, R. A.  
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- **A modification of the Yodfat Laryngeal Mask Airway insertion technique** *JOURNAL OF CLINICAL ANESTHESIA*  
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- **The cerebrospinal fluid production rate is reduced in dementia of the Alzheimer's type** *NEUROLOGY*  
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- **Failure to detect CO2-absorbent exhaustion: Seeing and believing** *ANESTHESIOLOGY*  
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- **Rewarming from hypothermia leads to elevated plasma lipopolysaccharide concentrations** *UNDERSEA & HYPERBARIC MEDICINE*  
Gaffin, S. L., Dietz, F. B., Brock-Utne, J. G., Andrews, T. C., Jaffe, R. A., Steinberg, G. K., Wallace, R. F.  
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- **Two tips for users of Bullard (TM) intubating laryngoscope** *ANESTHESIA AND ANALGESIA*  
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- **Pregnancy does not increase susceptibility to bupivacaine in spinal root axons** *ANESTHESIOLOGY*  
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- Dietz, F. B., Jaffe, R. A.  
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1996; 83 (4): 776-781
  - **Differential nerve block - Direct measurements on individual myelinated and unmyelinated dorsal root axons** *ANESTHESIOLOGY*  
Jaffe, R. A., Rowe, M. A.  
1996; 84 (6): 1455-1464
  - **Comments on Sotgiu et al (PAIN, 62 (1995) 250)** *Pain*  
Jaffe, R. A.  
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  - **INTERNAL GAS ANALYZER LEAK RESULTING IN AN ABNORMAL CAPNOGRAM AND INCORRECT CALIBRATION** *ANESTHESIA AND ANALGESIA*  
Healzer, J. M., SPIEGELMAN, W. G., Jaffe, R. A.  
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1995; 20 (2): 152-155
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Jaffe, R. A., Rowe, M. A.  
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  - **AN IN-VITRO STUDY OF FEMORAL INTRAMEDULLARY PRESSURES DURING HIP-REPLACEMENT USING MODERN CEMENT TECHNIQUE** *CLINICAL ORTHOPAEDICS AND RELATED RESEARCH*  
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Cohen, S. E., CHERRY, C. M., Holbrook, R. H., ELSAYED, Y. Y., Gibson, R. N., Jaffe, R. A.  
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  - **ACQUIRED IMMUNODEFICIENCY SYNDROME-ASSOCIATED NON-HODGKINS-LYMPHOMAS AND OTHER MALIGNANCIES IN PATIENTS WITH HEMOPHILIA** *BLOOD*  
Ragni, M. V., Belle, S. H., Jaffe, R. A., DUERSTEIN, S. L., Bass, D. C., MCMILLAN, C. W., Lovrien, E. W., Aledort, L. M., Kisker, C. T., Stabler, S. P., Hoots, W. K., Hilgartner, M. W., COXGILL, et al  
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  - **ASPECTS OF MECHANICAL VENTILATION AFFECTING INTERATRIAL SHUNT FLOW DURING GENERAL-ANESTHESIA** *ANESTHESIA AND ANALGESIA*  
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  - **PERIOPERATIVE CORNEAL ABRASIONS** *ANESTHESIOLOGY*  
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  - **DIFFICULTY IN EXTUBATION - A CAUSE FOR CONCERN** *ANAESTHESIA*  
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- **INTRAOPERATIVE VENTILATOR-INDUCED RIGHT-TO-LEFT INTRACARDIAC SHUNT** *ANESTHESIOLOGY*  
Jaffe, R. A., Pinto, F. J., Schnittger, I., BROCKUTNE, J. G.  
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- **STIMULATION OF CUTANEOUS MECHANORECEPTORS BY 60-HZ ELECTRIC-FIELDS** *BIOELECTROMAGNETICS*  
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- **EFFECTS OF NEGATIVELY CHARGED AEROSOL ON BLOOD AND CEREBROSPINAL-FLUID PARAMETERS IN RATS** *INTERNATIONAL JOURNAL OF BIOMETEOROLOGY*  
Wehner, A. P., Ragan, H. A., Jaffe, R. A., Weigel, R. J., LUNDSTROM, D. L.  
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- **DOSIMETRY AND CARDIOPULMONARY FUNCTION IN RATS CHRONICALLY EXPOSED TO CIGARETTE-SMOKE** *TOXICOLOGY AND APPLIED PHARMACOLOGY*  
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- **EFFECT OF ANESTHETICS ON TESTOSTERONE PRODUCTION IN RATS** *JOURNAL OF ANDROLOGY*  
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- **SPERM TRANSPORT THROUGH THE RETE TESTIS IN ANESTHETIZED RATS - ROLE OF THE TESTICULAR CAPSULE AND EFFECT OF GONADOTROPINS AND PROSTAGLANDINS** *BIOLOGY OF REPRODUCTION*  
FREE, M. J., Jaffe, R. A., MORFORD, D. E.  
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- **TARGET ORGANS FOR TESTOSTERONE TRANSFERRED FROM VEIN TO ARTERY IN PAMPINIFORM PLEXUS - EPIDIDYMISS** *BIOLOGY OF REPRODUCTION*  
FREE, M. J., Jaffe, R. A.  
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- **EFFECTS OF DROPERIDOL ON ACTIVITY OF CAROTID-BODY CHEMORECEPTORS IN CAT** *BRITISH JOURNAL OF PHARMACOLOGY*  
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FREE, M. J., SCHLUNTZ, G. A., Jaffe, R. A.  
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Jaffe, R. A., Sampson, S. R.  
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