

CURRICULUM VITAE

Chandra Ramamoorthy, MBBS, FRCA

Personal Data

Place of Birth: India
Citizenship: U.S. citizen

Licensure to Practice Medicine

2001 California
1991(current) Washington

Academic History

1977 Jawaharlal Institute of Post-Graduate Medical Education and Research (JIPMER),
University of Madras, Pondicherry, India – M.B., B.S.
1999 Sabbatical – Children’s Hospital of Philadelphia, Philadelphia on Near Infrared
Spectroscopic Brain Monitoring in Children

Awards and Honors

1972 President of India’s Merit Scholarship
1976 Certificate of Merit in Ophthalmology
1977 University Gold Medal in Surgery
1978 Certificate of Merit in Pediatric Medicine

Postgraduate Training

1978-1979 Rotating Internee, JIPMER, Pondicherry, India
1979-1980 Junior Resident, JIPMER, Pondicherry, India – Pediatrics
1981-1982 Senior House Officer, Anesthesia – Pinderfields General Hospital, Wakefield, U.K.
1982-1983 Senior House Officer, Anesthesia – Leeds General Infirmary, Leeds, U.K.
1983-1985 Registrar, Anesthesia – Aberdeen Royal Infirmary, Aberdeen, U.K.
1985-1986 Fellow, Pain Research – Pain Relief Foundation, Walton Hospital, Liverpool, U.K.
1986-1987 Fellow, Pediatric Anesthesia – Children’s Hospital of Michigan, Detroit, MI
1987-1988 Fellow, Cardiac Anesthesia – Loyola University Medical Center, Maywood, IL

Post-Degree Honors

1989 Teacher of the Year, Loyola University
2002 Teacher of the Month, July, Stanford University
2003 Faculty of the Year (Teaching Excellence Award), Stanford University

Board Certification

1983 Fellow of the Faculty Anesthetists of the Royal College of Surgeons (FFARCS), U.K.
1988 American Board of Anesthesiology

Research Funding

1. Co- Investigator: Chandra Ramamoorthy, M.D.
“Safety, efficacy and kinetics of milrinone in children following open heart surgery.”
Grant from Sanofi-Winthrop (June 1994 – June 1996)
2. Principal Investigator: Chandra Ramamoorthy, M.D.
“Cytokine and endothelial mRNA expression following acute lung injury.”
Research Endowment Grant from Children’s Hospital and Medical Center, Seattle WA 98105
(October 1995)
3. Principal Investigator: Chandra Ramamoorthy, M.D.
“Non Pulsatile Tissue Oximetry in children.”
Innovations in Patient Care: Grant from Lucile Packard Foundation for Children’s Health, Stanford, CA. (July 2004-June 2005)

Research in Progress

1. Principal Investigator: Chandra Ramamoorthy, M.D.
“Oximetry in Children with Heart Disease-the role of NIRS in early detection of cerebral desaturation during cardiac catheterization”
2. Principal Investigator: Chandra Ramamoorthy, M.D.
“Pharmacokinetics of ketamine in Children”

Employment

Faculty Positions

1983-1985	Clinical Tutor in Anesthesia, University of Aberdeen, Aberdeen, Scotland
1988-1991	Assistant Professor of Anesthesia, Loyola University Medical Center, Maywood, IL
1991-1998	Assistant Professor of Anesthesiology, University of Washington School of Medicine, Seattle, WA
1998-2001	Associate Professor of Anesthesiology, University of Washington School of Medicine, Seattle, WA
2002-2006	Associate Professor of Anesthesiology, Stanford University School of Medicine, Stanford, CA
2006-Present	Professor of Anesthesiology, Stanford University School of Medicine, Stanford, CA

Hospital Positions Held

1988-1991	Staff Anesthesiologist, Foster G. McGaw Hospital, Maywood, IL
1991-1998	Staff Anesthesiologist, Children’s Hospital and Medical Center, Seattle, WA
1998-2000	Director, Cardiovascular Anesthesia, Children’s Hospital and Medical Center, Seattle, WA
2001-2002	Staff Physician, Stanford University Medical Center, Palo Alto, CA
2001-Present	Director, Pediatric Cardiovascular Anesthesia, Lucile Packard Children’s Hospital, Palo Alto, CA
2003-2004	Acting Division Chief, Pediatric Anesthesia, Stanford University Medical Center, Palo Alto, CA
2006-Present	Endowed Directorship in Pediatric Cardiac Anesthesia, Lucile Packard Children’s Hospital, Palo Alto, CA

Membership in Professional Organizations

American Society of Anesthesiology
 International Anesthesia Research Society
 Society for Pediatric Anesthesia

Public and Professional ServiceSpecial Local Responsibilities

1991-2001	Biomedical equipment specialist, Department of Anesthesiology, Children's Hospital and Regional Medical Center, Seattle, WA
1997-1998	Research Endowment Grant Support Advisory Committee, Children's Hospital and Regional Medical Center, Seattle, WA
1997-1999	Research Committee, Department of Anesthesiology, University of Washington School of Medicine, Seattle, WA
1998-2000	Management Committee, Department of Anesthesiology, Children's Hospital and Regional Medical Center, Seattle, WA
2000-2001	Scheduler Operating Room, Children's Hospital and Regional Medical Center, Seattle, WA
2001-2004	Scheduler and Clinical OR Director (Pediatrics), Stanford University Medical Center, Stanford, CA
2001-Present	Governance Committee Member, Stanford University Medical Center, Stanford, CA
2008	Associate Dean's Review Committee for Academic Affairs

Committees at Lucile Packard Children's Hospital

2002-2004	Chair, Innovations in Patient Care Grant Program
2002-Present	OR Planning Committee
2001-2004	Pediatric Surgery OR Efficiency Committee
2003-2005	Medical Board
2003-2005	Credentials Committee
2003-2003	OR Governance
2003-Present	Maternofetal Surgery Program
2002-Present	Heart Center, Co-director

Editorial Responsibilities

1998-Present	Reviewer – Anesthesia and Analgesia
2002-Present	Reviewer – Circulation
2006-Present	Reviewer-Pediatric Anesthesia

Special National Responsibilities

1996-Present	Pediatric Perioperative Cardiac Arrest Registry Committee
2004-Present	Society for Pediatric Anesthesia, Education Committee
2005	Congenital Cardiac Anesthesia Society, Organizing Committee Member
2006	Congenital Cardiac Anesthesia Society, Vice President
2007	Congenital Cardiac Anesthesia Society, Program Director for inaugural CCAS education meeting, Phoenix, Arizona
2007	Society of Cardiothoracic Vascular Anesthesia, Education Committee
2008	Society of Cardiothoracic Vascular Anesthesia, Program Director
2008	Pediatric Cardiac Intensive Care Symposium, Program Director
2009-2010	Congenital Cardiac Anesthesia Society, President

Teaching Responsibilities

Didactic: Stanford University Medical Center, Anesthesia Residents, Cardiology Fellows, ICU nurses

1. General Anesthesia in Pediatrics, January 2002
2. Anesthetic Considerations for Pediatric Cardiac Surgery, March 2003
3. General Anesthesia for Pediatrics, May 2003
4. Anesthetic Considerations in children for cardiac catheterization in children, March 2004
5. General Anesthesia for Pediatrics, May 2004
6. General Anesthesia for Pediatrics, May 2005
7. Anesthetic Considerations for Pediatric Cardiac Surgery, May 2005
8. Cardiac Anesthesia and cardiopulmonary Bypass, May 10, 2005
9. Perioperative Neurological Monitoring, May 24, 2005
10. Anesthesia and Sedation for children with heart Disease, April 2008

Clinical Teaching:

Intraoperative teaching of medical students, anesthesia residents, pediatric anesthesia fellows, and pediatric critical care fellows with special emphasis on vascular access techniques, congenital heart disease and its implications, neurological monitoring during heart surgery in children and adults with congenital heart disease

Medical Student Research Mentor:

1. Carly Heninger, Stanford University medical student, Student Scholar Program, 2005-2006. Completed project: *Near infrared and visible light spectroscopy in ischemia detection*. Manuscript published.
2. Katherine Brill, University of California at San Diego, IARS summer scholarship recipient. Project: *Role of near infrared cerebral oximetry in ischemia detection in children with complex congenital heart disease during cardiac catheterization*. Abstract presented. Manuscript in preparation.

Bibliography

Peer-reviewed Articles (56 published, 1 in press, 1 submitted)

1. Bhala BB, **Ramamoorthy C**, Bowsher D, Yelnoorker, KN: Shingles and post-herpetic neuralgia. *Clin. J. Pain* 4:169-174, 1988.
2. **Ramamoorthy C**, Rooney M, Dries DJ Mathru M: Aggressive hydration during continuous-pressure ventilation restores atrial transmural pressure, plasma atrial natriuretic peptide concentrations, renal function. *Crit. Care Med.* 20:1014-1019, 1992.
3. Sorenson GK, **Ramamoorthy C**, Lynn AM, French J Stevenson JG: Hemodynamic effects of amrinone in children following Fontan surgery. *Anesth. Analg.* 82:241-246, 1996.
4. **Ramamoorthy C**, Sharar SS, Harlan JM Tedder TF, Winn RK: Blocking L-selectin function attenuates reperfusion injury following hemorrhagic shock in rabbits. *Am. J. Physiol.* 271:H1871-H1877, 1996.
5. **Ramamoorthy C**, Sasaki SS, Su DL, Sharar SR, Harlan JM, Winn RK: CD18 blockade decreases bacterial clearance and neutrophil recruitment after intrapulmonary *E. coli*, but not after *S. aureus*. *J. Leukocyte Biol.* 61:167-172, 1997.
6. **Ramamoorthy C**, Kovarik WD, Winn RK, Harlan JM, Sharar SR: Neutrophil adhesion molecule expression is comparable in perinatal rabbits and humans. *Anesthesiology* 86:420-427, 1997.
7. Thiagarajan RR, **Ramamoorthy C**, Gettmann T, Bratton SL: Survey of the use of peripherally inserted central venous catheters in children. *Pediatrics* 99:1-4, 1997.
8. **Ramamoorthy C**, Williams GD, Stevenson J: Reversible pulmonary hypertension due to adenotonsillar hypertrophy in a patient for fontan operation. *J. Clin. Pediatr.* 36:599-601, 1997.

Peer-reviewed Articles (56 published, 1 in press, 1 submitted)

9. Williams GD, **Ramamoorthy C**, Totzek FR, Oakes RL: Comparison of the effects of red cell separation and ultrafiltration on heparin concentration during pediatric open-heart surgery. *J. Cardiothorac. Vasc. Anesth.* 11:840-844, 1997.
10. Winn RK, **Ramamoorthy C**, Vedder NB, Sharar SR, Harlan JM: Luekocyte-endothelial cell interactions in ischemia-reperfusion injury. *Ann NY Acad Sci* 832:311-321, 1997.
11. **Ramamoorthy C**, Anderson GD, Williams GD, Lynn AM: Pharmacokinetics and side effects of milrinone in infants and children after open heart surgery. *Anesth. Analg.* 86:283-289, 1998.
12. **Ramamoorthy C**, Lynn AM: Con: the use of modified ultrafiltration during pediatric cardiovascular surgery is a benefit. *J. Cardiothorac. Vasc. Anesth.* 4:483-485, 1998.
13. **Ramamoorthy C**, Geiduschek JM, Bratton SL, Miser A, Miser J: Postdural puncture headache in pediatric oncology patients. *Clin. Pediatr.* 37:247-252, 1998.
14. Thiagarajan RR, Bratton SL, Gettmann T, **Ramamoorthy C**: Efficacy of non-centrally placed peripherally inserted central venous catheters (PICC). *Arch. Pediatr. Adol. Med.* 152:436-439, 1998.
15. Bratton SL, **Ramamoorthy C**, Eck JB, Sorenson GK: Teaching successful central venous cannulation in infants and children: Audio Doppler versus anatomical landmarks. *J. Cardiothorac. Vasc. Anesth.* 12:523-526, 1998.
16. Williams GD, Bratton SL, **Ramamoorthy C**: Fibrinolysis in pediatric patients undergoing cardiopulmonary bypass. *J. Cardiothor. Vasc. Anesth.* 12:633-638, 1998.
17. Winn R, Vedder N, **Ramamoorthy C**, Sharar S, Harlan J: Endothelial and leukocyte adhesion molecules in inflammation and disease. *Blood Coagul. Fibrinolysis* 9 Suppl. 2:S17-23, 1998.
18. Williams GD, Bratton SL, Riley EC, **Ramamoorthy C**: Association between age and blood loss in children undergoing open-heart surgery. *Ann. Thorac. Surg.* 66:870-876, 1998.
19. Williams GD, Bratton SL, Riley EC, **Ramamoorthy C**: Efficacy of epsilon aminocaproic acid in children undergoing open-heart surgery. *J. Cardiothor. Vasc. Anesth.* 13:304-308, 1999.
20. **Ramamoorthy C**, Lynn AM, Stevenson JG: Pro: Transesophageal echocardiography (TEE) should be routinely used during pediatric open heart surgery. *J. Thorac. Cardiovasc. Anesth.* 13:629-631, 1999.
21. Williams GD, Bratton SL, Riley EC, **Ramamoorthy C**: Coagulation tests during cardiopulmonary bypass correlate with blood loss in children undergoing cardiac surgery. *J. Cardiothorac. Vasc. Anesth.* 13:398-404, 1999.
22. William GD, **Ramamoorthy C**: Con: The routine use of aprotinin in pediatric open heart surgery is a benefit. *J. Cardiothor. Vasc. Anesth.* 13(6):785-8, 1999.
23. Williams GD, Bratton SL, **Ramamoorthy C**: Factors associated with blood loss and product transfusion: a multivariate analysis in children after open heart surgery. *Anesth. Analg.* 89:57-64, 1999.
24. Keenan HT, Thiagarajan RR, Stephens K, Williams G, **Ramamoorthy C**, Lupinetti FM: Pulmonary function following modified veno-venous ultrafiltration in infants. *J. Cardiothorac Vasc. Anesth.* 119:501-515, 2000.
25. Morray JP, Geiduschek JM, **Ramamoorthy C**, Haberkern CM, Hackel A, Caplan RA, Domino KB, Posner K, Cheney FW: Anesthesia-related cardiac arrest in children: Initial findings of the perioperative cardiac arrest (POCA) Registry. *Anesthesiology* 93:6-14, 2000.
26. Tabbutt S, **Ramamoorthy C**, Montenegro LM, Durning SM, Godinez RI, Kurth CD, Steven JM, Spray T, Nicolson S: Impact of inspired gas mixtures on pre-operative infants with hypoplastic left heart syndrome (HLHS) during controlled ventilation. *Circulation* 104:[suppl I]:I-159-164, 2001.
27. **Ramamoorthy C**, Tabbutt S, Kurth CD, Stevens J, Montenegro L, Durning S, Wernovsky G, Gaynor G, Spray T, Nicolson S: Effects of inspired hypoxic and hypercarbic gas mixtures in neonates with univentricular heart disease. *Anesthesiology* 96(2):283-8, 2002.
28. Elwood T, Stillions DM, Bradford HM, **Ramamoorthy C**: Nasotracheal intubation: A randomized trial of two methods. *Anesthesiology* 96(1):51-3, 2002.

Peer-reviewed Articles (56 published, 1 in press, 1 submitted)

29. Posner KL, Geiduschek J, Haberkern CM, **Ramamoorthy C**, Hackel A, Morray JP: Unexpected cardiac arrest among children during surgery: a North American registry to elucidate the incidence and causes of anesthesia related cardiac arrest. *Qual Saf Health Care* 11(3):252-257, 2002.
30. Ditsworth D, Priestly M, Loepke A, **Ramamoorthy C**, McCann J, Kurth CD: Apoptotic Neuronal Death following Deep Hypothermic Circulatory Arrest in Piglet. *Anesthesiology* 98(5):1119-27, 2003.
31. Andropoulos DB, Stayer SA, Diaz LK, **Ramamoorthy C**: Neurological Monitoring for Congenital Heart Surgery. *Anesth. Analg.* 99: 1365-1375, 2004.
32. Brock-Utne J, **Ramamoorthy C**: Temperature Monitoring. *Trauma Care* 14(2):61-64, 2004.
33. Ikai A, Riemer RK, **Ramamoorthy C**, Malhotra S, Cassorla L, Amir G, Hanley FL, Reddy VM: Preliminary results of fetal cardiac bypass in nonhuman primates. *J. Thorac. Cardiovasc. Surg.* 129: 175-181, 2005.
34. Mariano ER, Bolz GM, Albanese C, **Ramamoorthy C**: Anesthetic managements of infants with palliated hypoplastic left heart syndrome undergoing laparoscopic Nissen fundoplication. *Anesth Analg* 100(6):1631-1633, 2005.
35. Hammer GB, **Ramamoorthy C**, Cao H, Williams GD, Boltz MG, Kamra K, Drover DR: Postoperative analgesia after spinal blockade in infants and children undergoing cardiac surgery. *Anesth. Analg.* 100(5):1283-88, 2005.
36. Mariano ER, Chu LF, Albanese CT, **Ramamoorthy C**: Successful Thoracoscopic Repair of Esophageal Atresia with Tracheoesophageal Fistula in a Newborn with Single Ventricle Physiology. *Anesth. Analg.* 101:1000-1002, 2005.
37. Mariano ER, **Ramamoorthy C**, Chu LF, Chen M, Hammer GB: A comparison of three methods for estimating appropriate tracheal tube depth in children. *Ped. Anesth.* 15: 846-851, 2005.
38. Amir G, **Ramamoorthy C**, Riemer RK, Reddy MV, Hanley FL: Neonatal brain protection and deep hypothermic circulatory arrest: Pathophysiology of ischemic neuronal injury and protective strategies. *Ann. Thorac. Surg.* 80:1955-1964, 2005.
39. Chock V, Amir G, Davis CR, **Ramamoorthy C**, Riemer RK, Hanley FL, Reddy VM: Antegrade cerebral perfusion reduces apoptotic neuronal injury in a neonatal piglet model of cardiopulmonary bypass. *J. Thorac. Cardiovasc. Surg.* 131(3):659-665, 2006.
40. Friedberg MK, Chang IL, Silverman NH, **Ramamoorthy C**, Chan FP: Near sudden death from cardiac lipoma in an adolescent. *Circulation* 113:e778-e779, 2006.
41. Amir G, **Ramamoorthy C**, Riemer RK, Davis CR, Hanley FL, Reddy VM: Visual light spectroscopy reflects flow related changes in brain oxygenation during regional low flow perfusion and deep hypothermic circulatory arrest. *J. Thorac. Cardiovasc. Surg.* 132:1307-1313, 2006.
42. Williams GB, **Ramamoorthy C**, Chu L, Hammer GB, Kamra K, Boltz MB, Pentcheva K, McCarthy JP, Reddy VM: Modified and conventional ultrafiltration during pediatric cardiac surgery: Clinical outcome compared. *J. Thorac. Cardiovasc. Surg.* 132:1291-1298, 2006.
43. Mariano ER, Chu LF, **Ramamoorthy C**, Macario A: Scheduling elective pediatric procedures that require anesthesia: the perspective of parents. *Anes. Analg.* 103(6):1426-1431, 2006.
44. Ejike JC, Schenkman KA, Seidel K, **Ramamoorthy C**, Roberts JS: Cerebral oxygenation in neonatal and pediatric patients during veno-arterial extracorporeal life support. *Pediatr Critical Care Medicine.* Mar, 7(2):154-8, 2006.
45. Heninger C, **Ramamoorthy C**, Amir G, Kamra K, Reddy VM, Hanley FL, Brock-Utne JG: Esophageal saturation during antegrade cerebral perfusion: A preliminary report using visible light spectroscopy. *Ped. Anesth.* Nov; 16(11):1133-7, 2006.
46. Slater B, Rangel S, **Ramamoorthy C**, Abrajano C, Albanese CT: Outcomes after laparoscopic surgery in neonates with hypoplastic heart left heart syndrome. *J Pediatr Surg.* Jun; 42(6):1118-21, 2007.

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47. Rice-Townsend S, **Ramamoorthy C**, Dutta S: Thoracoscopic repair of a type D esophageal atresia in a newborn with complex congenital heart disease: *J. Pediatr. Surg.* 42(9):1616-9, 2007.
48. Bhananker SM, **Ramamoorthy C**, Geiduschek JM, Posner KL, Domino KB, Haberkern CM, Campos JS, Morray JP: Anesthesia-related cardiac arrest in children: update from the Pediatric Perioperative Cardiac Arrest Registry. *Anesth. Analg.* 105(2):344-50, 2007.
49. Kipps AK, **Ramamoorthy C**, Rosenthal DN, Williams GD: Children with cardiomyopathy: complications after noncardiac procedures with general anesthesia. *Paediatr Anaesth* Aug;17(8):775-81, 2007.
50. Williams GD, Phillips BM, Boltz MG, Kamra K, Hammer G, Perry SB, Feinstein JA, **Ramamoorthy C**: Ketamine does not increase the pulmonary vascular resistance in children with pulmonary hypertension. *Anesth. Analg.* 105(6): 1578-84, 2007.
51. Hammer GB, Drover DR, Cao H, Jackson E, Williams GD, **Ramamoorthy C**, Van Hare GF, Niksch A, Dubin AM: The effects of dexmedetomidine on cardiac electrophysiology in children. *Anesth Analg* 106(1):79-83, 2008.
52. Amir G, Ma X, Reddy VM, Hanley FL, Reinhartz O, **Ramamoorthy C**, Riemer RK: Dynamics of human myocardial progenitor cell populations in the neonatal period. *Ann Thorac Surg* 86: 4: 1311-9, 2008.
53. Williams GD, **Ramamoorthy C**, Pentcheva K, Boltz MG, Kamra K, Reddy VM. *Peadiatr. Anaesth.* 18(9):812-9, 2008.
54. Amir G, **Ramamoorthy C**, Riemer RK, Hanley FL, Reddy VM: Deep brain hyperthermia while rewarming from hypothermic circulatory arrest. *J Card Surg* 24(5):606-10, 2009.
55. Williams G, Maan H; **Ramamoorthy C**, Kamra K, Bratton S, Bair E, Kuan C, Hammer G, Feinstein J: Perioperative complications in children with pulmonary hypertension undergoing general anesthesia with ketamine. *Pediatr Anesth* 20:1, 28-37, 2010.
56. Sasaki T, Tsuda S, Riemer RK, **Ramamoorthy C**, Reddy VM, Hanley FL. Optimal flow rate for antegrade cerebral perfusion. *J Thorac Cardiovasc Surg* 139(3):530-535, 2010.
57. **Ramamoorthy C**, Haberkern CM, Bhananker SM; Domino KB, Posner KL, Campos JS, Morray JP. Anesthesia-Related Cardiac Arrest in Children with Heart Disease: Data from the Pediatric Perioperative Cardiac Arrest (POCA) Registry. *Anesth. Analg.* 2010. In Press.
58. Chock VY, **Ramamoorthy C**, Van Meurs KP. Cerebral monitoring with near-infrared spectroscopy in neonates requiring medical or surgical treatment for a patent *ductus arteriosus*. Submitted to *Pediatric Research*.

Book Chapters

1. Orr J, **Ramamoorthy C**: Controversies in ambulatory pediatric anesthesia, in Orr R.J, Pavlin J (Eds.): Anesthesiology Clinics of North America: Ambulatory Anesthesia, Vol. 14, Philadelphia, W.B. Saunders, December 1996.
2. **Ramamoorthy C**, Morray JP: Truncus Arteriosus, in Roizen MF, Fleisher LA (Eds.): Essence of Anesthesia Practice. Philadelphia: W.B. Saunders, p. 316, 1996.
3. **Ramamoorthy C**: Inotropic support in children in Eisenkraft JB (Ed.): Progress in Anesthesiology, San Antonio, Texas: Dannemiller Education Foundation, Vol. 12, p. 471-488, 1996.
4. **Ramamoorthy C**, Morray JP: Truncus Arteriosus, in Roizen MF, Fleisher LA (Eds.): Essence of Anesthesia Practice, Second Edition, Philadelphia: W.B. Saunders, p. 327, 2002.
5. **Ramamoorthy C**: Anesthesia for Congenital Heart Disease in Jaffe RA, Samuels SI (Eds): Anesthesiologists Manual of Surgical Procedures, Third Edition, 2003.

Book Chapters

6. Williams GD, **Ramamoorthy C**, Anshuman S: Cardiac and Lung Transplantation in Children, in Andropoulos, Russell, Stayer, (Eds): Anesthesia and Congenital Heart Disease, Futura Publishing Company, p 385-403, 2005.
7. **Ramamoorthy C**, Andropoulos D: Neurologic monitoring in children during cardiopulmonary bypass in Andropoulos, Russell, Stayer, (Eds): Anesthesia and Congenital Heart Disease, Futura Publishing company, p 122-135, 2005.
8. Williams GD, **Ramamoorthy C**: Anesthesia considerations for pediatric thoracic solid organ transplant. Anesthesiology Clin North America 23(4) p. 709-731, 2005.
9. Williams GD, **Ramamoorthy C**: Brain Monitoring And Protection During Pediatric Cardiac Surgery. Semin Cardiothorac Vasc Anesth 11(1):22-33, 2007.

Abstracts

1. **Ramamoorthy C**, Mathru M, Dries DJ, Zecca, RN: Renal dysfunction during PEEP ventilation may not be mediated by atrial natriuretic factor. *Anesthesiology* 71S, A187, 1989.
2. **Ramamoorthy C**, Wat S, Rooney M: Small volume hypertonic NaCl resuscitation in a pediatric hemorrhage model. *Anesthesiology* 73S, A1111, 1990.
3. **Ramamoorthy C**, Sukhani R, Black PR: Pediatric spinals without supplement: In search of the optimal drug and dose. *Anesthesiology* 75S, 1991.
4. Sukhani R, **Ramamoorthy C**, Wahood A, Black PR: Spinal lidocaine: An optimal agent for inguinal herniorrhaphy in infants. *Anesthesiology* 75S, 1991.
5. Sharar S, **Ramamoorthy C**, Kovarik D, Harlan J, Winn R: Abnormalities in resting and stimulated expression of L-selection (CD62L) and CD18 on preterm rabbit neutrophils (PMNs). *FASEB Journal* 8:A323, 1994.
6. Sasaki S, Su D, Ramamoorthy C, Sharar S, Winn R, Harlan J: Bacterial recovery from rabbit lung homogenates parallels neutrophil emigration changes after CD 18 blockade. *FASEB J* 9:A963, 1995.
7. **Ramamoorthy C**, Williams GD, Lynn AM, Anderson GD, Sorensen GK, Nespeca MK: Pharmacokinetics of milrinone in children after open heart surgery. *Anesthesiology* 83:A1134, 1995.
8. Geiduschek JG, **Ramamoorthy C**, Morray JP, Hackel A, Kaplan R, Domino K, Cheney F: Perioperative cardiac arrests in children. *Anesthesiology* 83:A1188, 1995.
9. **Ramamoorthy C**, Williams GD, Bratton SL, Anderson GD, Lynn AM: Pharmacodynamics of milrinone in children following open heart surgery. *Anesth. Analg.* 82:SCA19, 1996.
10. Williams GD, **Ramamoorthy C**, Bratton SL: Preoperative coagulation tests and perioperative blood product usage in children undergoing open-heart surgery. *Anesth. Analg.* 82:SCA105, 1996.
11. **Ramamoorthy C**, Williams GD, Bratton SL, Sorensen GK, Stevenson JG, Lynn AM: Does milrinone have lusitropic effects in children following open heart surgery? *Anesthesiology* 85:A121, 1996.
12. Jacobson LE, Poinier AC, Geiduschek JM, Sasaki SS, Karl HW, **Ramamoorthy C**, Bratton SL: Ketorolac for inguinal hernia repair in children: Less nausea and faster recovery than after caudal anesthesia or nerve block. *Anesthesiology* 85:A1089, 1996.
13. Thiagarajan RR, **Ramamoorthy C**, Gettman T, Bratton SL: Survey of the use of peripherally inserted central venous catheters in children. *Pediatrics electronic abstracts*, pp. 246-247, 1997.
14. Morray JP, Geiduschek JM, **Ramamoorthy C**, Hackel A, Posner K, Caplan R, Domino KB, Cheney, FW: Pediatric perioperative cardiac arrest: Registry update. *Anesth. Analg.* 84:S446, 1997.
15. Williams GD, **Ramamoorthy C**: Does veno-venous ultrafiltration or red cell salvage alter post-bypass heparin concentrations in children? *Anes. Analg.* 84:SCA25, 1997.
16. Eck JO, **Ramamoorthy C**, Bratton SL: Central vein cannulation in infants and children use of audio doppler increases success rate. Western Anesthesia Resident's Conference, April 1997.

Abstracts

17. Williams GD, **Ramamoorthy C**, Stephens Jr. KE: Heparin rebound after open-heart surgery in infants. *Anesthesiology* 87:A94, 1997.
18. **Ramamoorthy C**, Lynn A, Williams GD, Zimmerman A, Morray JP, Stevenson JG: Utility of transesophageal echocardiography, as assessed by anesthesiologists, during surgery for congenital heart disease. *J. Am. Soc. Echocardiogr.* 12:A420, 1999.
19. Thiagarajan R, Keenan H, Kenton S, Williams G, **Ramamoorthy C**, Lupinetti FM: Changes in pulmonary function after modified veno-venous ultrafiltration following cardio-pulmonary bypass in infants. *Crit. Care Med.* 27:A27, 1999.
20. **Ramamoorthy C**, Tabbutt S, Kurth CD, Stevens J, Montenegro L, Durning S, Wernovsky G, Gaynor, G, Spray T, Nicolson S: Effects of inspired 17% O₂ or 3% CO₂ on cerebral saturation in neonates with hypoplastic left heart syndrome. *Anesth. Analg.* SCA 26, 2000.
21. **Ramamoorthy C**, Tabbutt S, Kurth CD, Stevens J, Montenegro L, Durning S, Wernovsky G, Gaynor G, Spray T, Nicolson S: Effects of hypoxic and hypercarbic inspired gas mixtures in neonates with hypoplastic left heart syndrome. *Anesthesiology* A131, 2000.
22. Tabbutt S, **Ramamoorthy C**, Montenegro LM, Durning SM, Godinez RI, Kurth CD, Steven JM, Spray TL, Wernovsky G, Nicolson S: Impact of inspired gas mixtures on pre-operative infants with hypoplastic left heart syndrome (HLHS) during controlled ventilation. *Circulation* 102 (suppl II):II-469, 2000.
23. Okpechi JC, Schenkman KA, Seidel K, Roberts JS, **Ramamoorthy C**: Cerebral Oxygenation in Pediatric Patients Veno-Arterial Extracorporeal Membrane Oxygenation. *Crit Care Med* 30:12, A79, 2003.
24. **Ramamoorthy C**, Schober H, Lemmens HJ, Chan F, Brodsky JB: Pediatric Airway Measurements and Selective-Lung Ventilation in Children. SPA, San Francisco, October, 2003.
25. Boltz MG, **Ramamoorthy C**, McCarthy JP, Reddy VM, Hanley FL: Human Fetal Extracorporeal Circulation – Perioperative Management. SPA, San Francisco, October, 2003.
26. Williams G, Kamra K, Hanley F, **Ramamoorthy C**: Value of Near-infrared Spectroscopy Monitoring During Aortic Arch Repair In a Child. SPA, Phoenix, March, 2004.
27. Mariano ER, **Ramamoorthy C**, Chen M Hammer GB: A Comparison of Three Methods for Determining Proper Tracheal Tube Depth in Children. SPA, Phoenix, March 2004.
28. Mariano ER, **Ramamoorthy C**, Chen M Hammer GB: A Comparison of Three Methods for Determining Proper Tracheal Tube Depth in Children. WARC, May 2004.
29. Mariano ER, **Ramamoorthy C**, Macario A: How Do Parents Decide When Their Child Will Have Surgery? ASA, Las Vegas, October, 2004.
30. Drover DR, Hammer GB, Williams GD, Boltz MG, **Ramamoorthy C**: A Comparison of Patient State Index (PSI) Changes and Remifentanyl Requirements During Cardiopulmonary Bypass in Infants Undergoing General Anesthesia With or Without Spinal Anesthesia. ASA, Las Vegas, October, 2004.
31. Amir G, Riemer K, Hanley P, Reddy VM, **Ramamoorthy C**: Prospective Detection of Tissue Ischemia During Hypothermic Circulatory Arrest Using Visible Light Spectroscopy. ASA, Las Vegas, October 2004.
32. Bhananker S, **Ramamoorthy C**, Posner KL, Domino KB, Morray JP: Changing Profile of Anesthesia-Related Cardiac Arrests in Children: Update from Pediatric Peri-Operative Cardiac Arrest (POCA) Registry. ASA, New Orleans, October 25, 2005.
33. Goldberg S, **Ramamoorthy C**, Williams G, Chan FP: Adverse outcomes in children with heart disease undergoing cardiac CT or MRI. Radiology Society of North America, Chicago, November 2005.
34. Albanese CT, Feng A, **Ramamoorthy C**, Slater B: Minimal access surgery can be performed safely in children with single ventricle physiology. Society for Pediatric Anesthesia Annual Meeting, Sanibel Harbor, Florida, February 2006.

Abstracts

35. Feinstein J, Maass B, **Ramamoorthy C**, Williams G: Ketamine does not increase pulmonary vascular resistance in children with pulmonary hypertension. Society for Pediatric Anesthesia Annual Meeting, Sanibel Harbor, Florida, February 2006.
36. Williams GD, Boltz GM, Chu L, Kamra K, Kuan C, Hammer GB, Reddy VM, **Ramamoorthy C**. Anesthetic management of low birth weight infants undergoing open-heart surgery: a retrospective study. Society of Pediatric Anesthesia Meeting. March 8-11, 2007, Phoenix, AZ.
37. Williams GD, Kamra, K, Boltz MG, Hammer GB, Kuan C, **Ramamoorthy C**. Complications in children undergoing cardiac catheterization with general anesthesia. Society of Pediatric Anesthesia Meeting. March 8-11, 2007, Phoenix, AZ.
38. Anderson J, **Ramamoorthy C**, Boltz MG, Kamra K, Kuan C, Hammer GB, Williams GD. Children with heart disease: adverse events during general anesthesia. Society of Pediatric Anesthesia Meeting. March 8-11, 2007, Phoenix, AZ.
39. Hammer GB, Cao H, Jackson E, Williams G, **Ramamoorthy CR**, Van Hare GF, Niksch A, Dubin AM: The effects of dexmedetomidine on cardiac electrophysiology in children. Annual meeting of the Society for Pediatric Anesthesia, October 2007, San Francisco.
40. K Brill, L Chu, M Masako, E Bair, H Terwey, **C Ramamoorthy**: Pulse Oximetry is a poor predictor decreases in cerebral oxygen saturation in children with heart disease Society for Pediatric Anesthesia, April 2008, San Diego, California.
41. N Sun, GD Williams, **C Ramamoorthy**: One lung ventilation in Children with cyanotic heart disease. Society for Pediatric Anesthesia, April 2008, San Diego, California.
42. **Ramamoorthy C**, Hammer GB, Galinkin J, Drover DR. The pharmacokinetics of ketamine in pediatric cardiac patients. SPA/AAP Pediatric Anesthesiology 2010 Winter Meeting, April 2010, San Antonio, Texas.

Selected Invited Presentations

- 1986 "Effects of morphine sulphate on somatosensory perception." Brain Research Association and IASP (British and Irish Chapters), Liverpool, U.K.
- 1989 "Renal dysfunction during PEEP ventilation may not be mediated by atrial natriuretic factor." American Society of Anesthesiologists, New Orleans, LA.
- 1990 "Small volume hypertonic NaCl resuscitation in a pediatric hemorrhage model." American Society of Anesthesiologists, Las Vegas, NV.
- 1991 "Small volume hypertonic NaCl resuscitation in a pediatric hemorrhage model." American Academy of Pediatrics, San Diego, CA.
- 1991 "Pediatric spinals without supplement: In search of the optional drug and dose." American Society of Anesthesiologists, San Francisco, CA
- 1995 "Pharmacokinetics of milrinone in children following open heart surgery." American Society of Anesthesiologists, Atlanta, GA.
- 1996 "Pharmacodynamics of milrinone in children following open heart surgery." Society for Cardiovascular and Thoracic Anesthesia, Salt Lake City, UT.
- 1996 "Does milrinone have lusitropic effects in children following open heart surgery?" American Society of Anesthesiologists, New Orleans, LA.
- 1999 "Utility of transesophageal echocardiography, as assessed by anesthesiologists, during surgery for congenital heart disease." 10th Annual Scientific Sessions of the American Society of Echocardiography, Washington, D.C.
- 2000 "Effects of inspired 17% O₂ or 3% CO₂ on cerebral saturation in neonates with hypoplastic left heart syndrome." Society for Pediatric Anesthesiology and American Academy of Pediatrics, Ft. Myers, FL.

Selected Invited Presentations

- 2000 "Effects of inspired 17% O₂ or 3% CO₂ on cerebral saturation in neonates with hypoplastic left heart syndrome." Society for Cardiovascular and Thoracic Anesthesia, Orlando, FL.
- 2000 "Effects of hypoxic and hypercarbic inspired gas mixtures in neonates with hypoplastic left heart syndrome." American Society of Anesthesiologists, San Francisco, CA.
- 2005 "Anesthesia for children undergoing cardiac catheterization"; Cath Angio Laboratory, Stanford Hospital and Clinics, Palo Alto, CA
- 2008 "Creating a pediatric perioperative environment for children undergoing cardiac catheterization." Laboratory Nurses and Technicians, Palo Alto, CA

Visiting Speaker

- 1989 "New developments in pediatric inotropic support." Northwest Pediatric Critical Care Cooperative, University of Washington, Seattle, WA.
- 1990 "Anesthetic management of pediatric cardio-pulmonary bypass." American Society of Extra Corporeal Technology, Seattle, WA.
- 2001 "Anesthetic considerations in skeletal dysplasia." Little People of America Conference, Santa Clara, CA.
- 2002 "Management of patients with Single Ventricle." Jawaharlal Institute of Post Graduate Medical Education and Research, Pondicherry, India.
- 2004 New Mexico Society of Anesthesiologists, Albuquerque, New Mexico. "Brain Monitoring and Protection During Cardiopulmonary Bypass."
- 2004 Brazilian Congress of Anesthesia, Curitiba Brazil; Santa Catarina Childrens Hospital, Sao Paulo, Brazil.
 - 1. "Perioperative Cardiac Arrests in Children: Causes & Outcome,"
 - 2. "Management of Children with Heart Disease for Non-Cardiac Surgery"
 - 3. "Assessment of Cardiac Function during Pediatric Cardiac Anesthesia"
- 2004 Pediatric Cardiac Intensive Care Symposium, Miami, Florida
 - 1. "Routine Neurologic Monitoring"; and
 - 2. "Intraoperative Neurological Monitoring"; and
 - 3. "Current Issues in Pediatric Cardiac Intensive Care"; and
 - 4. "Manipulation of Single Ventricle Physiology."
- 2005 Moderator, Scientific Poster Discussion, Society for Pediatric Anesthesia, Miami, FL. February.
- 2005 "Perioperative issues in patients with congenital heart disease." International Anesthesia Research Society (IARS). March.
- 2005 "Tetralogy of Fallot: from infancy to adulthood." Society of Cardiovascular Anesthesia, Baltimore, MD. May.
- 2005 Advances in Pediatric Cardiac Anesthesia, Jaslok Hospital, Bombay, India. July.
- 2005 Pediatric Cardiac Society of India; Hyderabad, India. July 15-17, 2005.
 - 1. "Recent trends in pediatric cardiac anesthesia"
 - 2. "Anesthetic management in fetal heart surgery"
 - 3. ASO in Normothermic CPB (session Chair)
 - 4. Thyroid hormones and congenital heart surgery (session Chair)
 - 5. Cardiopulmonary bypass in newborns (session Chair)
- 2005 Children's Hospital of Michigan, Wayne State University, Detroit. August. "Considerations in children with heart diseases for non-cardiac surgery."

Visiting Speaker

- 2005 North of England Paediatric Cardiac Surgical Meeting; University of New Castle Upon Tyne, U.K. September 2005.
 - 1. "Anaesthetic challenges in managing low birth weight infants for heart surgery"
 - 2. "Neurological monitoring during and after heart surgery in children"
- 2005 Jornada Paulista de Anestesiologia, Ribeirao Preto, Brazil. October.
 - 1. "Anesthesia for non-cardiac surgery in children with congenital heart disease"
 - 2. "Anesthesia for children with pulmonary hypertension"
 - 3. "Anesthesia for children with single ventricle physiology"
- 2005 Children's Hospital of San Paulo, Brazil, October.
 - 1. "Methods of reducing blood loss and transfusion in children"
 - 2. "Pulmonary hypertension in children: Perioperative management"
- 2005 Congenital Cardiac Anesthesia Society, Miami, Florida. December.
 - 1. "Minimal access non-cardiac surgery in children with palliated single ventricle physiology"
 - 2. Moderator for panel discussions
- 2006 Role of BNP in congenital heart disease, Society of Cardiovascular Anesthesia, San Diego. April.
- 2007 Program Chair, Congenital Cardiac Anesthesia Society meeting, Phoenix, Arizona. February.
- 2007 Visiting Speaker, Association of Cardiothoracic Anesthetists of Great Britain, U.K., April. "Limitations of neuro monitoring."
- 2008 Visiting Professor, Department of Anesthesia, Pharmacology, and Therapeutics, University of British Columbia, Vancouver, Canada. Feb. 13-14, 2008.
 - 1. "Children with cardiac disease for noncardiac surgery: who should care for them"
 - 2. "Perioperative cardiac arrests in children: lessons learned from the POCA Registry"
- 2008 Visiting Professor, Birmingham Children's Hospital, Birmingham UK, February 28-29, 2008.
 - 1. "Brain Monitoring in Children during heart Surgery"
 - 2. "Brain Protection during heart Surgery"
- 2008 Visiting Professor, Cincinnati Children's Hospital, Cincinnati, Ohio May 27-28, 2008.
 - 1. "Cardiac Arrests in Children: lessons from POCA registry"
 - 2. "Children with heart disease for non-cardiac procedures: Who should care for them?"