BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITL	E	
Chandra Ramamoorthy, M.B.,B.S.			
eRA COMMONS USER NAME	Associate P	rofessor of A	nesthesiology
EDUCATION/TRAINING (Begin with baccalaureate or other initial p	orofessional education, s	such as nursing, a	nd include postdoctoral training.)
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Jawaharlal Institute of Post-Graduate Medical	M.B., B.S.	1977	Medicine

A. Positions and Honors.

Positions and Employment

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

Faculty Positions

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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, Univ. of Washington School of Medicine, Seattle, WA
1998-2001	Associate Professor of Anesthesiology, Univ. of Washington School of Medicine, Seattle, WA
2002-present	Associate 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
2001-present	Director, Pediatric Cardiovascular Anesthesia, Lucile Packard Children's Hospital
	Palo Alto, CA
2003-2004	Acting Chief, Division of Pediatric Anesthesia, Stanford University School of Medicine

Honors

1999	Teacher of the Year, Loyola University
2002	Teacher of the Month (July), Stanford University
2003	Faculty of the Year (Teaching Excellence Award), Stanford University

B. Selected peer-reviewed publications (in chronological order).

- 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**, Gettman 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.
- 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. Anes.* 12:523-526, 1998.
- 16. Williams GD, Bratton SL, **Ramamoorthy C**: Fibrinolysis in pediatric patients undergoing cardiopulmonary bypass. *J. Cardiothor. Vasc. Anes.* 12:633-638, 1998.
- 17. Winn R, Vedder N, **Ramamoorthy C**, Sharar S, Harlan J: Endothelial and leukocyte ad-hesion 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 echocardio-graphy (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 perioperatic 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.
- 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**, Malhatra 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, DroverDR: Postoperative analgesia after spinal blockade in infants and children undergoing cardiac surgery. *Anesth. Analg.* 100(5):1283-88, 2005.
- 38. 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.
- 36. 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.* In press.
- 38. Amir G, **Ramamoorthy C**, Riemer RK, Davis CR, Hanley FL, Reddy VM: Antegrade cerebral perfusion reduces apoptotic neuronal injury in a neonatal piglet model of cardiopulmonary bypass. *J. Thorac. Cardiovasc. Surg.* In press.

C. Research

Research Funding

1. Grant from Sanofi-Winthrop (\$90,000; June 1994 – June 1996) "Safety, efficacy and kinetics of milrinone in children following open heart surgery."

- 2. Research Endowment Grant from Children's Hospital and Medical Center (\$4,900 October 1995) "Cytokine and endothelial mRNA expression following acute lung injury."
- 3. Innovations in Patient Care: Grant from Lucile Packard Foundation for Children's Health (\$28,000 June 2005) "Non Pulsatile Tissue Oximetry in children."