

## **CURRICULUM VITAE**

### **SRINIVAS MANDAVA, M.D.**

#### **EDUCATION:**

1980-1987     Bangalore University, Bangalore, India.  
1979-1980     University of Maryland, College Park, Maryland  
1977-1979     Paint Branch High School, Burtonsville, Maryland

#### **CLERKSHIPS:**

**Cook County Hospital**, Chicago, IL, 1986-1987  
*General Surgery*: September 1 to October 31  
*Orthopedics*: November 1 to November 15  
*Anesthesiology*: November 16 to November 30  
*General Pediatrics*: December 1 to December 31  
*Obstetrics and Gynecology*: February 1 to March 31

#### **FELLOWSHIPS (Research):**

**National Institutes of Health**  
September 1, 1989 to June 30, 1991: **Intramural Research Training Award** under  
Theodor Kolobow, M.D., NHLBI, LCB, Pulmonary and Cardiac Assist Devices,  
National Institutes of Health, Bethesda, MD 20892

**National Institutes of Health**  
July 15, 1988 to August 31, 1989: **Special Volunteer** under Theodor Kolobow, M.D.,  
NHLBI, LCB, Pulmonary and Cardiac Assist Devices  
National Institutes of Health  
Bethesda, MD 20892.

#### **INTERNSHIP:**

*Department of Anesthesiology*, University of Wisconsin Hospitals and Clinics, Madison,  
WI, July 1, 1991 to June 30, 1992.

#### **RESIDENCY:**

*Department of Anesthesia*, The Milton S. Hershey Medical Center, Penn State  
University, Hershey, PA, July 1, 1992 to July 31, 1995.

**FELLOWSHIPS (Critical Care):**

*Department of Anesthesiology, University of Maryland at Baltimore, Baltimore, MD.  
August 1, 1995 to July 31, 1996.*

**CERTIFICATION:**

*American Board of Anesthesiologists, Board Eligibility pending  
American Board of Anesthesiologists (Critical Care), Board Eligibility pending  
FLEX, Pennsylvania, February, 1992  
ECFMG, Philadelphia, PA, December, 1990  
ATLS (Instructor)- December 1993 - Current  
ATLS - June 27, 2001 - June 27, 2005  
ACLS - May 2, 2004 - May 2006  
BCLS - April 2004 - April 2006*

**MILITARY SERVICE:**

None

**CONSULTING:**

2000 - 2003	Mandava Associates – Associate
2003 – Present	Mandava Associates – Director of Pharmaceuticals and Medical Devices

**FACULTY POSITIONS:**

1995 - 1996	Critical Care Fellow in Department of Anesthesiology University of Maryland at Baltimore
1996 - 1998	Department of Anesthesiology and Critical Care Medicine Shock Trauma Center
1998 - 2003	Department of Anesthesiology, Doctors Community Hospital, Lanham, MD
1998 - 2004	Department of Critical Care Medicine, Doctors Community Hospital, Lanham, MD
2003 - present	Department of Anesthesiology, Howard County General Hospital, Columbia, MD
2004- present	Department of Critical Care Medicine, Laurel Regional Hospital, Laurel, MD

**LICENSURE:**

Maryland Medical License # available on request  
Maryland Control Drug Substance #: available on request  
Pennsylvania Medical License # : available on request  
Federal DEA # available on request.

**PROFESSIONAL MEMBERSHIPS:**

1994- present	American Medical Association American Society of Anesthesiologists American Society for Artificial Internal Organs American Society of Critical Care Anesthesiologists American Society of Regional Anesthesia American Thoracic Society International Anesthesia Research Society International Trauma Anesthesia and Critical Care Society Society of Critical Care Medicine
1996- present	Drug Information Association Maryland Medical Society – MEDCHI Montgomery County Medical Society Maryland Chapter of the American Society of Anesthesiologists Washington D.C. Chapter of Society of Critical Care Medicine

**HONORS AND AWARDS:**

*Resident Award for Medical Writing.* Department of Anesthesia, Hershey Medical Center, Pennsylvania State University, June 1995

Ranked #3 in Medical School out of class of 100.

*Best Outgoing Student Award.* Presented once a year for overall academic performance from the medical college. 1986 - 1987.

**TEACHING ACTIVITIES:**

University of Maryland at Baltimore and Shock Trauma Center

**PUBLICATIONS:****BOOK CHAPTER:**

"Perioperative Management of the Multi - Trauma Patient" by John K. Stene, Jr., M.D., Ph.D., *Srinivas Mandava, M.D.*, and William A. Loder, M.D. ***Critical Care Medicine - Perioperative Management***, Williams and Wilkens, Baltimore, MD. December, 1996.

**JOURNAL ARTICLES:**

1. F. Rossi, M.D., T. Kolobow, M.D., G. Foti, M.D., M. Borrelli, M.D. and *S. Mandava, M.D.*: "Long Term Cardiopulmonary Bypass by Peripheral Cannulation in a Model of Total Heart Failure. The Decompression of the Left Heart Through a Percutaneous Spring Positioned within the Lumen of the Tricuspid and Pulmonary Artery Valves." *Journal of Thoracic and Cardiovascular Surgery*, Dec. 1990 100: 914-920.
2. E. Muller, T. Kolobow, *S. Mandava*, M. Jones, G. Vitale, M. Aprigliano and I. Yamada: "How to Ventilate Lungs as Small as 12% of Normal. The New Technique of Intratracheal Pulmonary Ventilation." *Journal of Pediatric Research* Nov. 1993 34(5): 606-610.
3. T. Kolobow, M.D., T. Powers, B.S., *S. Mandava, M.D.*, M. Aprigliano, M.D., A. Kawaguchi, K. Tsuno, M.D. and E. Muller, M.D.: "Intratracheal Pulmonary Ventilaton (ITPV): Control of Positive End-Expiratory Pressure at the Level of the Carina Through the Use of a Novel ITPV Catheter Design." *Anesthesia and Analgesia* March 1994 78: 455-461.
4. Barnas, George M., Paul A. Delaney, Ileana Gheorghiu, *Srinivas Mandava*, Robert G. Russell, Renee Khan, and Colin F. Mackenzie: "Respiratory Impedences and Acinar Gas Transfer in a Canine Model for Emphysema." *J. Appl. Physiol.* 83(1): 179 - 188, 1997.
5. *Srinivas Mandava, M.D.*, Theodor Kolobow, M.D., Giovanni Vitale, M.D., Guiseppe Foti, M.D., Michele Aprigliano, M.D., Michael Jones, M.D., Eckhard Muller, M.D., "Lethal Systemic Capillary Leak Syndrome Associated with Severe Ventilator-Induced Lung Injury: An Experimental Study." *Journal of Critical Care Medicine* 31(3): 885 – 892, 2003.
6. M. Snider, R. Richard, K. High, G. Panol, and *S. Mandava*: "Simultaneous Online Measurements of O<sub>2</sub>, CO<sub>2</sub>, N<sub>2</sub>, and H<sub>2</sub>O Vapor Transfer During Blood Perfusion of Membrane Lungs." *ASAIO Journal* 41: 1995.
7. *S. Mandava*, G.R.J. Panol, M.T. Snider, J.V. Kaspar, J.C. Keifer, S.B. Harper, R.B. Richard and K. M. High: "Simple and Rapid Percutaneous Placement of Intravascular Artificial Lungs in the Calf." (in process of completion)

## **ABSTRACTS:**

1. T. Kolobow<sup>1</sup>, E. Muller<sup>1</sup>, S. Mandava<sup>1</sup>, M. Jones<sup>2</sup>, G. Vitale<sup>1</sup>, M. Aprigliano<sup>1</sup> and I. Yamada<sup>2</sup>: "Intratracheal Ventilation (ITV) and Intratracheal Pulmonary Ventilation (ITPV). A Technique Whose Time has Come."  
  
National Heart, Lung and Blood Institute--<sup>1</sup>LCB, Section on Pulmonary and Cardiac Assist Devices, <sup>2</sup>Surgery Branch, National Institutes of Health, Bethesda, MD 20892. Extracorporeal Life Support Organization (ELSO) Meeting, Ann Arbor, MI, November 3-4, 1990.
2. E. Muller<sup>1</sup>, T. Kolobow<sup>1</sup>, S. Mandava<sup>1</sup>, M. Jones<sup>2</sup>, G. Vitale<sup>1</sup>, M. Aprigliano<sup>1</sup> and I. Yamada<sup>2</sup>: "On How to Ventilate Lungs as Small as 12% of Normal. Intratracheal Pulmonary Ventilation (ITPV). A New Mode of Ventilation."  
  
National Heart, Lung and Blood Institute--<sup>1</sup>LCB, Section on Pulmonary and Cardiac Assist Devices, <sup>2</sup>Surgery Branch, National Institutes of Health, Bethesda, MD 20892. Extracorporeal Life Support Organization (ELSO) Meeting, Ann Arbor, MI, November 3-4, 1990.
3. T. Kolobow, E. Muller, S. Mandava, M. Jones, G. Vitale, M. Aprigliano and I. Yamada: "Intratracheal Pulmonary Ventilation (ITPV). A New Technique." *American Review of Respiratory Diseases* April 1991 143(4): A602.
4. E. Muller, T. Kolobow, S. Mandava, M. Jones, G. Vitale, M. Aprigliano and I. Yamada: "On How to Ventilate Lungs as Small as 12% of Normal. Intratracheal Pulmonary Ventilation (ITPV). A New Mode of Pulmonary Ventilation." *American Review of Respiratory Diseases* April 1991 143(4): A693.
5. T. Kolobow, E. Muller, S. Mandava, M. Jones, G. Vitale, M. Aprigliano and I. Yamada: "Intratracheal Pulmonary Ventilation (ITPV). A New Technique." *Journal of Pediatric Research* May 1991 29: 168A.
6. E. Muller, T. Kolobow, S. Mandava, M. Jones, G. Vitale, M. Aprigliano and I. Yamada: "Intratracheal Pulmonary Ventilation (ITPV). A New Technique to Ventilate Lungs as Small as 12% of Normal." *Journal of Pediatric Research* May 1991 29: 1938.
7. E. Muller, T. Kolobow, S. Mandava, M. Aprigliano, G. Vitale and M. Jones: "On How to Avoid Ventilator Induced Injury to the Small Lungs in CDH. The New Technique of Intratracheal Pulmonary Ventilation (ITPV). An Experimental Study." First European Society on Extracorporeal Lung Support, Paris, France, May 22-24, 1991.

**ABSTRACTS (Cont):**

8. M. Snider, M.D., K. High, M.D., J. Ultman, Ph.D., G. Panol, M.S., R. Richard, M.S., H. Baskaran, B.S., J. Stene, M.D., G. Russell, M.D. and S. *Mandava, M.D.*: "What is the Best Fiber Length for Gas Transfer in Intrapulmonary Arterial Lungs?" *Anesthesiology* September 1991 79: A1237.
9. M. T. Snider, K. M. High, G.R.J. Panol, R.B. Richard, J. S. Ultman, H. Baskaran, J. K. Stene, and S. *Mandava*: "Construction and Testing of Larger Intrapulmonary Arterial Lung." *ASAIO* 1994 Abstracts 40: 66.
10. M. Snider, R. Richard, K. High, G. Panol, and S. *Mandava*: "Simultaneous Online Measurements of O<sub>2</sub>, CO<sub>2</sub>, N<sub>2</sub> and H<sub>2</sub>O Vapor Transfer During Blood Perfusion of Membrane Lungs." *ASAIO* 1995 Abstracts 41: 67.
11. S.*Mandava*, G. Panol, M.Snider, J. Kaspar, J. Keifer, S. Harper, R. Richard, and K. High: "Simple and Rapid Percutaneous Placement of Intravascular Artificial Lungs in the Calf." *ASCCA* 1995 Abstracts.
12. S. *Mandava, M.D.*, C. F. Mackenzie, M.D., G. M. Barnas, Ph.D., R. Khan, B.Sc., P. Delaney, M.S.: "Catheter Placement and Outflow Velocity as a Means of Increasing Oxygenation and Ventilation in a Canine Model of Acute Respiratory Failure." *Anesthesiology* 1996 Abstracts 85: A1114.
13. S. *Mandava, M.D.*, T. Kolobow, M.D., G. Vitale, M.D., G. Foti, M.D., E. Muller, M.D., D. Petrick, M. Jones, M.D., M. Aprigliano, M.D.: "Lethal Systemic Capillary Leak Syndrome Associated with Barotrauma. An Experimental Study." *American Journal of Respiratory and Critical Care Medicine* 1999 Abstracts 159: A603.

**INVITATIONAL LECTURES:**

1. Milan, Italy. (May 19-31, 1991), by L. Gattinoni, M.D. and the Department of Anesthesiologie, Instituto de Milano. Presented the work of ITPV (IntraTracheal Pulmonary Ventilation) and a discussion of ECCO<sub>2</sub>R and ECMO, and the management of ARDS.
2. Aachen, West Germany. (June 2-4, 1991), by Prof. N. Mouttaghy, M.D., and the Department of Physiology, University of Aachen. Presented at the Department of Physiology and the Department of Anesthesiology, "Long Term Cardiopulmonary Bypass in a Model of Severe Myocardial Ischemia and in a Model of Ventricular Fibrillation. The Decompression of the Left Heart Through the Use of a Percutaneous Spring Positioned within the Lumens of the Tricuspid and Pulmonary Artery Valves."
3. Marburg, Germany. (June 5-10, 1991), by Prof. Dr. Med. H. Lennartz and the Department of Anesthesiologie and Critical Care. Presented at combined Grand Rounds the topic of "Long Term Cardiopulmonary Bypass in a Model of Severe Myocardial Ischemia and/or Ventricular Fibrillation. The Decompression of the Left Heart Through a Percutaneous Spring Positioned within the Lumen of the Tricuspid and Pulmonary Artery Valves."
4. Madison, Wisconsin. (July 10, 1991), as part of the Inservice Training Program for the Nursing staff and reserved on the ventilator management of ARDS patients and how to prevent iatrogenic injury from mechanical ventilation.
5. Hershey, Pennsylvania. (April 28, 1993), by Michael T. Snider, M.D., Ph.D. for **Grand Rounds** of the Respiratory and Critical Care Block. Presented research work that was done during my NIH Fellowship on Acute Lung Injury from Mechanical Ventilation and the New Technique of ITPV.
6. Hershey, Pennsylvania. (January 25, 1995), by W. Bosseau Murray, M.D. for **Grand Rounds** of the Respiration block. Topic labeled "Old and New Modes of Mechanical Ventilation."
7. Baltimore, Maryland. (December 14, 1995), by Brian J. McGrath, M.D. for **Grand Rounds** of the Critical Care Case Conference. Presented discussion of "Septic Shock."

**POSTER PRESENTATIONS:**

1. T. Kolobow, F. Rossi, G. Foti and S. Mandava: "Demand Heart Assist: Long Term Closed-Chest Cardiopulmonary Assist for Partial and/or Total Cardiac Failure. An Experimental Study." Poster session presented October, 1988. *NHLBI Intramural Research Day*.
2. S. Mandava, T. Kolobow, G. Vitale, G. Foti, E. Muller, B. Jones, D. Petrick and M. Aprigliano: "Acute Respiratory Failure with Multiorgan System Failure Following Mechanical Ventilation at High Peak Airway Pressures. An Experimental Study." Poster session presented September 10, 1990. *NIH Research Festival*.
3. E. Muller, T. Kolobow, S. Mandava, M. Jones, G. Vitale, M. Aprigliano, I. Yamada, C. Ewing and L. Herman: "Intratracheal Pulmonary Ventilation (ITPV): A New Technique to Sustain Normal Gas Exchange in Lungs as Small as 7% of Normal." Poster session presented September 11, 1990. *NIH Research Festival*.
4. T. Kolobow, E. Muller, S. Mandava, M. Jones, G. Vitale, M. Aprigliano and I. Yamada: "Intratracheal Pulmonary Ventilation (ITPV). A New Technique." *American Lung Association/American Thoracic Society International Conference - Poster Session*, Anaheim, CA, May 12-15, 1991.
5. E. Muller, T. Kolobow, S. Mandava, M. Jones, G. Vitale, M. Aprigliano and I. Yamada: "On How to Ventilate Lungs as Small as 12% of Normal. Intratracheal Pulmonary Ventilation (ITPV). A New Mode of Pulmonary Ventilation." *American Lung Association/American Thoracic Society International Conference - Poster Session*, Anaheim, CA, May 12-15, 1991.
6. M. Snider, M.D., K. High, M.D., J. Ultman, Ph.D., G. Panol, M.S., R. Richard, M.S., H. Baskaran, B.S., J. Stene, M.D., G. Russell, M.D. and S. Mandava, M.D.: "What is the Best Fiber Length for Gas Transfer in Intrapulmonary Arterial Lungs?" *American Society of Anesthesiologists - Poster Session*, Washington, D.C., October 9-13, 1993.
7. S.B. Harper, D.V.M., M.S., J.C. Keifer, M.D., V.C. Faircloth, B.S., M.M. Schwartz, B.S., S. Mandava, M.D. and M.T. Snider, M.D., Ph.D.: "Calf Heart Morphometry Predicts Suitability for Intrapulmonary Implants." *ASAIO*, Chicago, IL, May 4 - 6, 1995.
8. M. Snider, R. Richard, K. High, G. Panol, and S. Mandava: "Simultaneous Online Measurements of O<sub>2</sub>, CO<sub>2</sub>, N<sub>2</sub>, and H<sub>2</sub>O Vapor Transfer During Blood Perfusion of Membrane Lungs." *ASAIO*, Chicago, IL, May 4 - 6, 1995.
9. S. Mandava, G. Panol, M. Snider, J. Kaspar, J. Keifer, S. Harper, R. Richard and K. High: "Simple and Rapid Percutaneous Placement of Intravascular Artificial Lungs in the Calf." *ASCCA - Poster Session*, Atlanta, GA, October 20, 1995.



10. *S. Mandava, M.D., C. F. Mackenzie, M.D., G. M. Barnas, Ph.D., R. Khan, B.Sc., P. Delaney, M.S.:* "Catheter Placement and Outflow Velocity as a Means of Increasing Oxygenation and Ventilation in a Canine Model of Acute Respiratory Failure." *American Society of Anesthesiologists* - Poster Session, New Orleans, LA, October 19 - 23, 1996.
11. *S. Mandava, M.D., T. Kolobow, M.D., G. Vitale, M.D., G. Foti, M.D., E. Muller, M.D., D. Petrick, M. Jones, M.D., M. Aprigliano, M.D.:* "Lethal Systemic Capillary Leak Syndrome Associated with Barotrauma. An Experimental Study." *American Lung Association/American Thoracic Society International Conference* – Poster Session, San Diego, CA April 23 – 28, 1999.