

## RESUME

Samsun (Sem) Lampotang, Ph.D.

### APPOINTMENTS

- ◆ Professor, Dept. of Anesthesiology, University of Florida, July 1, 2005 – present
- ◆ Affiliate Professor, Dept. of Mechanical and Aerospace Eng., Univ. of Florida, July 1, 2005 – present
- ◆ Affiliate Professor, Dept. of Electrical and Computer Eng., Univ. of Florida, July 1, 2005 - present
- ◆ Associate Professor, Dept. of Anesthesiology, University of Florida, July 1999 – June 2005
- ◆ Assistant Professor, Dept. of Anesthesiology, University of Florida, August 1992 – June 1999

**BIRTHPLACE:** Port Louis, Mauritius, Indian Ocean

**EDUCATION:** Ph.D., Mechanical Engineering, University of Florida, 1992

### HONORS AND AWARDS (Selected)

- ◆ First Prize in Category “Sharing Learning Objects”, Partnership in Global Learning 2005, Sao Paulo, Brazil
- ◆ Award for Innovative Excellence in Teaching, Learning and Technology, University of Florida, April 2003
- ◆ ASA Outstanding Scientific and Educational Exhibit, (VAM), ASA 2001 meeting
- ◆ APSF Ellison C. Pierce award - Best Scientific Exhibit for Patient Safety (VAM), ASA 2001 meeting
- ◆ Society for Technology in Anesthesia (STA) Award for Best Abstract Application of Technology to Education, (VAM), Jan 2000
- ◆ Best ASA abstract for application of technology innovation, STA breakfast panel, ASA meeting, (imaging stylet), Oct. 1998
- ◆ International Anesthesia Research Society Second Place for Scientific Exhibit (imaging stylet), 1998
- ◆ STA Outstanding Abstract for Technology Innovation (imaging stylet), Jan 1998
- ◆ NY State Soc. of Anest. PGA, Honorable Mention for Scientific Exhibit (imaging stylet), 1997
- ◆ APSF Ellison C. Pierce Award for Best Scientific Exhibit on Patient Safety (imaging stylet), ASA 1997
- ◆ ASA Exceptional Merit Award for Scientific Exhibit (training devices), 1994
- ◆ ASA Outstanding Scientific and Educational Exhibit (training devices for monitoring equipment), 1992
- ◆ ASA Outstanding Scientific and Educational Exhibit (anesthesia simulator, now HPS), 1987

### EDITORIAL BOARDS

- ◆ *Simulation in Healthcare*, Editorial Board Member, Jan 2006 – present
- ◆ *Internet Journal of Anesthesiology*, Editorial Board Member, 2000 – present

### COMMITTEE APPOINTMENTS (Selected)

- ◆ Board of Directors, Society for Technology in Anesthesia - 2004 - present
- ◆ Sub-Committee on Anesthesia Machine Pre-use Check, American Society of Anesthesiologists, 2004 - present
- ◆ Committee on Safety and Quality of Practice, World Federation Soc. of Anaesthesiology, 2004 - present
- ◆ Committee on Education and Training, Anesthesia Patient Safety Foundation, 2002 - present

### REFEREED PUBLICATIONS (Selected)

- ◆ Lampotang S, Lizdas D, Gravenstein N, Liem EB: Transparent reality, a simulation based on interactive dynamic graphical models emphasizing visualization. *Educational Technology*, Vol 46, No. 1, 55:59, 2006
- ◆ Lampotang S, Lizdas DE, Gravenstein N, Robicsek S: Audible indication of exhalation increases delivered tidal volume during bag valve mask ventilation of a patient simulator. *Anesth & Analg* 102:168-71, 2006
- ◆ Lampotang S, Gravenstein N, Paulus DA, Gravenstein D: Reducing the incidence of operating room fires: Supplying nasal cannulae with sub-100% O<sub>2</sub> gas mixtures from anesthesia machines. *Anesth & Analg* 101:1407-12, 2005
- ◆ Lampotang S, Sanchez JC, Chen BX, Gravenstein N: Effect of a bellows leak in an Ohmeda 7810 ventilator on room contamination, inspired oxygen, airway pressure and tidal volume. *Anest & Analg* 101:151-4, 2005

- ◆ Langevin PB, Hellein V, Harms SM, Tharp WK, Cheung-Seekit C, Lampotang S: Synchronization of radiograph film exposure with the inspiratory pause. *Am J Respir Crit Care Med* 160:2067-2071, 1999
- ◆ Gravenstein D, Melker RJ, Lampotang S: Clinical assessment of a plastic optical fiber stylet for human tracheal intubation. *Anesthesiology* 91:648-653, 1999.
- ◆ Lampotang S, Gravenstein JS, Euliano TY, van Meurs WL, Good ML, Kubilis P, Westhorpe R: Influence of pulse oximetry and capnography on time to diagnosis of critical incidents in anesthesia: a pilot study using a full scale simulator. *J Clin Monit Comput*. 14:313-312, 1998.
- ◆ Lampotang S, Good ML, Heijnen PMAM, Carovano R, Gravenstein JS: TWITCHER: A device to simulate thumb twitch response to ulnar nerve stimulation. *J Clin Monit Comput* 14:135-140, 1998.
- ◆ Lampotang S, Öhrn M, van Meurs WL: A simulator-based respiratory physiology workshop. *Acad Med* 71:526-527, 1996.
- ◆ Lampotang S, Gravenstein N, Banner MJ, Jaeger MJ, Schultetus RR: A lung model of carbon dioxide concentrations with mechanical or spontaneous ventilation. *Crit Care Med* 14:1055-1057, 1986.

#### **BOOKS, CONTRIBUTOR OF A CHAPTER (Selected)**

- ◆ Lampotang S, Lizdas D, Liem EB, Gravenstein JS: APSF anesthesia machine workbook version 1.1, 2004
- ◆ Lampotang S, Lizdas D, Liem EB, Gravenstein JS: The APSF anesthesia machine workbook v1.0, 2002 – available in Chinese, English, Farsi, French, German, Italian, Japanese, Korean and Spanish
- ◆ Lampotang S, Good ML: The anesthesia machine, anesthesia ventilator, breathing circuit, and scavenging system in Kirby RR, Gravenstein N, Gravenstein JS, Lobato EB (eds): *Clinical anesthesia practice*, 2<sup>nd</sup> ed., Philadelphia, WB Saunders, 2001, pp. 277-302.

#### **VIDEOTAPES**

- ◆ Good ML, Lampotang S: The anatomy of an anesthesia machine. ASA-FDA Film Series on Patient Safety. University of Florida College of Medicine, Gainesville, Florida, 1991.
- ◆ Gravenstein JS, Good ML, Lampotang S, Carovano RC, Spaulding MK: The Gainesville Anesthesia Simulator. Anesthesia Patient Safety Foundation, 1991.

#### **COMPETITIVE ABSTRACTS (Selected)**

- ◆ Lampotang S, Moon S, Lizdas DE, Feldman JM, Zhang RV: Anesthesia machine pre-use check survey - Preliminary results, abstracted. *Anesthesiology* 103:A1195, 2005
- ◆ Lampotang S, Paulus DA, Gravenstein N: FDO<sub>2</sub> accuracy when supplying nasal cannulae from common gas outlets. *Anesthesiology* 101:A565, 2004
- ◆ Lampotang S, Lizdas D, Liem EB, Nyland ME, Gravenstein N: The Virtual Anesthesia Machine: An experiment in sustainable philanthropic education over the Web. *Anesthesiology* 99:A1319, 2003.
- ◆ Liem EB, Lizdas D, Lampotang S: A model-based computer simulation of anesthesia machine gas flows, abstracted. *Anesthesiology* 95:A511, 2001.
- ◆ Lampotang S, Dobbins W, Good ML, Gravenstein N, Gravenstein D: Interactive, Web-based, educational simulation of an anesthesia machine, abstracted. *J Clin Monit Comput* 16:56-57, 2000.
- ◆ Lampotang S, Cheung-Seekit C, Langevin PB: Design, implementation, and bench evaluation of a system for automatic synchronization of chest x-ray radiography with peak lung inflation, abstracted, in *Proceedings of the Annual Meeting of the IEEE Engineering in Medicine and Biology Society*, 1998.
- ◆ Thoman WJ, Lampotang S, Gravenstein D, van der Aa J: A computer model of intracranial dynamics, abstracted. *Proceedings of the 19th International Conference. IEEE/EMBS*, pp 2197-2200, 1997.
- ◆ Lampotang S, Good ML, van Meurs WL, Carovano RG, Azukas J, Rueger EM, Gravenstein JS: The University of Florida/Loral human patient simulator, abstracted. *J Anesthesia* 9:SS1-5, 1995.
- ◆ Sajjan I, van Meurs WL, Lampotang S, Good ML, Principe JC: Computer controlled mechanical lung model for an anesthesia simulator, abstracted. *Int J Clin Monit Comput* 10:194-195, 1993.
- ◆ Good ML, Lampotang S, Ritchie G, Heffels J, Miller B: Hybrid lung model for use in anesthesia research and education, abstracted. *Anesthesiology* 71:A982, 1989.
- ◆ Good ML, Lampotang S, Gibby GL, Gravenstein JS: Critical events simulation for training in anesthesiology, abstracted. *J Clin Monit* 4:140, 1988.

### SCIENTIFIC EXHIBITS (Selected)

- ◆ Lampotang S, Liem EB, Lizdas D, Gravenstein D: Web-based educational animation of an anesthesia machine. Annual Meeting. ASA, New Orleans, LA, October 13-17, 2001
- ◆ Gravenstein D, Lampotang S, Melker R, Doviak R, Hall J: Fiberoptic imaging stylet for intubation. Annual Meeting. ASA, San Diego, California, October 18-22, 1997.
- ◆ Lampotang S, van Oostrom H, Auzins C, SaGomes E, Johnson N, Gravenstein JS: Influence of compliance and resistance on the distribution of ventilation. ASA Annual Meeting, Atlanta, GA, Oct. 21-25, 1995
- ◆ Öhrn MAK, van Meurs W, van Oostrom H, Ayyalsamy A, van der Aa J, Gravenstein JS, Gravenstein N, Good ML, Lampotang S: Neuromuscular blockade and Mapleson D/Bain breathing circuits, two new training devices. Annual Meeting. ASA, San Francisco, California, October 15-19, 1994.
- ◆ Carovano RG Jr, Good ML, Gravenstein JS, Lampotang S, Brient SE, Carovano WA, Cooper EG, de Hair P, Hoag LJ, Safa A, van den Brock M, Yachabach TL: Monitoring instrument training devices for medical education. Annual Meeting. ASA, New Orleans, Louisiana, October 19-21, 1992.
- ◆ Good ML, Hekker JJ, Lampotang S, Gibby GL, Gravenstein JS: Learning about the anesthesia machine through simulation. Annual Meeting. ASA, San Francisco, California, October 8-12, 1988.
- ◆ Good ML, Lampotang S, Gibby GL, Gravenstein JS: Training in anesthesiology: critical events simulation. Annual Meeting. American Society of Anesthesiologists (ASA), Atlanta, Georgia, October 10-14, 1987.

### GRANTS (Selected)

- ◆ Lampotang S, Gravenstein N, Gravenstein D: Web Tutorial for the AirTraq, Prodol Medtec, S.A., 2006
- ◆ Lampotang S, Gravenstein N: Transparent reality simulation of perioperative hemostasis, Novo Nordisk, \$50,000, 2006
- ◆ Lampotang S: Development and Evaluation of a Web Simulation and Workbook for the Anesthesia Machine Pre-use Check. Anesthesia Patient Safety Foundation, \$65,000, 2005
- ◆ Lampotang S: Simulator testing of anesthetic conserving vaporizer. \$37,500. Hudson RCI, 2004
- ◆ Lampotang S: APSF anesthesia machine workbook. APSF, \$15,000, 2002
- ◆ Lampotang S: Virtual Fabius GS simulation and enhancements. Draeger Medical., \$74,500, 2001-2002
- ◆ Lampotang S, van Oostrom JH: Extraction of breath rate from the pulse oximeter optoplethysmogram. Novamatrix Medical Systems, \$67,585, 96-97
- ◆ Lampotang S, Banner MJ: Performance evaluation of an active heat and moisture exchanger using research dogs. Gibeck, \$48,142, 96-97
- ◆ Lampotang S: Hardware enhancements for Human Patient Simulator. Loral Data Systems, \$25,000, 94-95
- ◆ Lampotang S, Good ML, Gravenstein JS: Simulator-based usability study of an automated anesthesia record keeper. Datex Medical Instrumentation, \$48,676, 94-95
- ◆ Lampotang S, Gravenstein JS: Gainesville recirculating anesthesia delivery system (GRADS). Hewlett Packard Corporation, \$337,337, 93-95

### PATENTS, COPYRIGHTS & LICENSES (Selected)

- ◆ Lampotang S, Gravenstein JS, van Oostrom JHM. Ventilation apparatus and anesthesia delivery system. US Patent 6,131,571 issued October 2000
- ◆ Lampotang S, Melker RJ, Blanch PB, Rijhwani A. Gas blender. US Patent 5,887,611, issued 1999.
- ◆ Lampotang S, van Meurs WL, Good ML, Gravenstein JS, Carovano RG. An apparatus for and method of simulating bronchial resistance or dilation. US Patent 5,772,442, issued June 30, 1998
- ◆ Lampotang S, van Meurs WL, Good ML, Gravenstein JS, Carovano RG. An apparatus and method of detecting and identifying a drug. US Patent 5,779,443, issued July 14, 1998
- ◆ Lampotang S, van Meurs WL, Good ML, Gravenstein JS, Carovano RG. An apparatus and method of stimulating breathing sounds. US Patent 5,779,484, issued 1998
- ◆ Lampotang S, van Meurs WL, Good ML, Gravenstein JS, Carovano RG. Self regulating lung for simulated medical procedures. US Patent 5,584,701 issued December 17, 1996
- ◆ Lampotang S, Good ML, Gravenstein JS, Carovano RG. Method and apparatus for simulating neuromuscular stimulation during medical surgery. US Patent 5,391,081 issued February 21, 1995
- ◆ Banner MJ, Lampotang S, Blanch PB. Adult/pediatric transport ventilator. Licensed 1989