

Curriculum Vitae

**JOSEPH HILARY McISAAC III, MD, MS**

**CIVILIAN CAREER**

Phone: 860-545-2117  
FAX: 860-545-1784  
Cellular: 860-930-9831

**Present Employment**

**Chief of Trauma Anesthesia**

**Chief of Urologic Anesthesia**

**Partner and Director** , Hartford Anesthesiology Associates, Inc.

111 Founders Plaza, Suite 300

East Hartford, CT 06108

**Founder, CEO, and Director of Research and Development**

Mountain Laurel Biomedical, LLC

52 Northington Drive

Avon, CT 06001

[www.MountainLaurelBiomed.com](http://www.MountainLaurelBiomed.com)

**Civilian Education**

**Rensselaer at Hartford**

(Hartford Graduate Center)

Hartford, CT

**Degree, Year**

**MS, Biomedical  
Engineering, 1997**

**Residency in Anesthesiology**

Hartford Hospital

Hartford, CT

Subspecialties:

Cardiovascular and Thoracic Anesthesia, Pediatric Anesthesia, Urologic  
Anesthesia

**1989**

**Transitional Residency (Internship)**

Hartford Hospital

Hartford, CT

**1986**

**University of Connecticut School of  
Medicine**

Farmington, CT

**MD, 1985**

**Case Western Reserve University**

Cleveland, OH

**BA, *cum laude*, Chemistry,  
with Departmental Honors in  
Chemistry. Minors:  
Biology and Psychology,  
1981**

## **Areas of Expertise and Interest**

### **Biomedical Engineering**

Biological heat transfer- a commercial product is in clinical trials  
Neurophysiological monitoring during surgery (Evoked Potentials, EEG, BIS, Infra-red)  
Functional medical imaging (Ultrasound, Infra-red, Laser, Radiofrequency, Microwave, MRI)  
Electromagnetic interference and compatibility of medical devices (EMI/EMC)  
Cardiac and vascular fluid mechanics  
Biomedical signal processing- advanced stethoscope prototype being tested  
Virtual instrument design for medical applications- anesthesia information system design  
Biological interactions with electromagnetic radiation

### **Medical**

Management of Nuclear, Chemical, and Biological Casualties  
Medical Simulation Training  
Cardiac anesthesia  
Pediatric anesthesia  
Bleeding disorders during surgery  
Brain protection during surgery  
Perioperative temperature management  
Trauma resuscitation  
Urologic anesthesia

### **Military**

Nuclear, Chemical, and Biological Warfare Defense  
Electromagnetic pulse protection  
Electronic warfare defense  
Communications Technology

## **Research Experience**

2006-2008 Novel Operating Room Positioning Device  
2003-2008 Non-invasive intra-operative Temperature Measurement (Brain Temperature Tunnel)  
Handheld Echocardiography for Orthopedic Surgery  
2000-2008 Virtual Instrumentation for Anesthesia Using National Instruments LabView®  
-Enhanced Esophageal Stethoscope With Signal Processing  
-Anesthesia Information System  
1999-2008 Intra-operative Heat Transfer Device (10<sup>th</sup> stage commercial device in clinical trials in collaboration with Hamilton Sundstrand and Hartford Hospital- US Patents #6,349,412, February 26, 2002; #6,547,862, April 15, 2003.)  
Neurological Biosignal Analysis During Anesthesia (Evoked Potentials, EEG, BIS)  
Electromagnetic Compatibility of Cellular Telephones and Anesthesia Equipment

- 2000-2002 Plasma Antennas
- 1996-1997 Medical Radar Design for Body Imaging  
Anesthesia Personnel Exposure to Radio-frequency.  
Electromagnetic Fields.  
Anesthesia Personnel Exposure to Extremely Low Frequency  
Electromagnetic Fields.
- 1995-1999 Vascular Impedance Measurements and Higher Order Modeling  
of the Cardiovascular System Using Impulse Response Methods
- 1993-1996 Electromagnetic Interference to Anesthesia Devices.
- 1992-1995 Analysis of Blood Coagulation During Radical Retropubic  
Prostatectomy Using the Thromboelastograph.
- 1992 Participating Investigator, Burroughs-Wellcome Mivacron®  
Study.
- 1990-1991 Pilot Study to determine clinical utility of Sonoclot®  
Coagulation Analyzer in diagnosing post-cardiopulmonary bypass  
coagulopathy.
- 1987-1990 Designed and implemented retrospective study of the  
effects of anesthetics and blood loss in surgery. (The Effect of Anesthetic  
Type and on Blood Loss and Hospital Length of Stay in Radical  
Retropubic Prostatectomy, *Anesthesiology*, Supp., September 1989,  
abstract.)
- 1979-1981 Laboratory Synthesis and characterization of conducting organo-  
metallic polymers with the goal of developing room-temperature  
superconductors. (Thesis: *Aluminosiloxy- and Siloxy-Phthalocyanine  
Oligomers*, Case Western Reserve University, 1981.)

### **Research Grants Awarded**

- 2003-2005 \$100,000, Hartford Hospital Medical Staff Executive Committee, Clinical  
Research Award.
- 2004 \$6000, Hartford Anesthesiology Associates, Inc., Electronic Esophageal  
Stethoscope Study.
- 2003-2005 \$54,000, Hartford Hospital Research Endowment Fund, Surgical Cooling  
Garment Study.
- 2002 \$4000, Hartford Anesthesiology Associates, Inc., Electronic  
Esophageal Stethoscope Study.

### **Consulting Experience**

- 2007 GE Medical, *Confidentiality agreement in effect.*
- 2007 Ahlstrom Corporation, *Non-woven fabric for temperature regulation in a  
medical/surgical environment. Physical analysis, market considerations,  
competing and complementary technologies, alternative markets.*
- 2006 Appleton and Appleton, Attorneys at Law, Hartford, CT, *Medical case  
review and consultation.*
- 2006 Aspect Medical, Inc., *Confidentiality agreement in effect.*
- 2006 Maquet, Inc., *Confidentiality agreement in effect.*

- 2006 Cramer, Inc., *online education RFP submission*.
- 2006-2007 Blue Back Square Ambulatory Surgery Center, West Hartford, CT, *Anesthesia Department start-up planning*.
- 2005 Design By Analysis, Inc., *SBIR submission for a novel medical device*.
- 2004-2005 Z-Medica, Inc., *QuickClot™*
- 2002 Hamilton Sundstrand, Inc., *Regenerable CO2 Systems*.
- 2002 Dr. Linda Gillam, Hartford Hospital, *Tricuspid Valve Regurgitation Study*.
- 1999-2002 Dr. Theodore Anderson, *Plasma Antennas*.
- 1999 Hartford Hospital, Department of Biomedical Engineering. *Electromagnetic interference of cellular telephones in the operating room and critical care areas. Electric field measurements and immunity standards*.
- 1999 Dr. Quing Zhu, University of Connecticut. *Design and application of combined ultrasound, infrared imaging device for breast tumor diagnosis*.
- 1998 Dr. Quing Zhu, University of Connecticut. *Design of flexible, phased array ultrasound transducers for vascular studies*.
- 1998 Dr. Jill Peters, Women's Health Connecticut. *Urinary incontinence therapy device. Patent Pending*.
- 1998 Kendall Corporation. *Endotracheal tube design*.
- 1998 The Martek Group. *Noninvasive cardiac output monitor*.
- 1998 Novamatrix, Inc. *Noninvasive cardiac output monitors*.
- 1997 Department of Public Health, State of Connecticut. *Case reviewer for standard of care issues in anesthesiology*.
- 1995 Abbott, Inc. *Confidentiality agreement in effect*.
- 1993 Ohmeda, Inc. *Usability of anesthesia machine software. Design of cardiac monitors*.
- Nazlo, Inc. and Black Belt Systems, Inc. *Communications software beta-testing and design. Confidentiality agreement in effect*.

## **Publications**

### **BOOKS**

McIsaac, JH, Editor, **Hospital Preparation for Bioterror: A Medical and Biomedical Systems Approach**, Academic Press, October 2006.

### **CHAPTERS**

McIsaac, JH, Decontamination and Personal Protection, in McIsaac, JH, Editor, **Hospital Preparation for Bioterror: A Medical and Biomedical Systems Approach**, Academic Press, October 2006.

McIsaac, JH, Operating Room Preparation for Mass Casualties, in McIsaac, JH, Editor, **Hospital Preparation for Bioterror: A Medical and Biomedical Systems Approach**, Academic Press, October 2006.

McIsaac, JH, Electromagnetic Interference, in McIsaac, JH, Editor, **Hospital Preparation for Bioterror: A Medical and Biomedical Systems Approach**, Academic Press, October 2006.

**PAPERS**

Dean, WC, Hodgson, E, McIsaac, JH, **Liquid Cooling Garment Adaptation to Enhance Surgical Outcomes**. Presented at the International Conference On Environmental Systems, Society of Automotive Engineers International, (#2003-01-2339), July 2003, Vancouver, BC, Canada.

**BOOK REVIEWS**

McISAAC, JH, Basics of Blood Management, Journal of the American Medical Association, 298(21):2547-2548, December 5, 2007.

**ABSTRACTS**

McIsaac, JH, Kiraly, A, Smolka, A, Renouf, R, **Intraoperative Temperature Measurement Error**, *Anesthesiology*, Supp., September, 2006, abstract. Presented at the Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 14, 2006.

McIsaac, JH, Kiraly, A, Blum, J, **The Surgical Cooling Garment**, Abstract. Presented at the MEDi2005 Conference and Exhibition, Hartford, CT, October 26, 2005

McIsaac, JH, Blum, J, **The Brain Temperature Tunnel**, Abstract. Presented at the MEDi2005 Conference and Exhibition, Hartford, CT, October 26, 2005.

McIsaac, JH, Bowers, M, The **Electronic Esophageal Stethoscope**, Abstract. Presented at the MEDi2005 Conference and Exhibition, Hartford, CT, October, 26, 2005.

Blum, J, McIsaac, JH, Fernandez, A, Palter M, **The Brain Temperature Tunnel: A Non-invasive Technique for Monitoring Core Temperature**, abstract. Presented at Advances in Medical Technology: Bionanotechnology, The Seventh Annual BEACON Symposium and Technology Fair, Hartford Hospital, Hartford, CT, October 28, 2004.

McIsaac, JH, Blum, J, Hodgson, E, Dean, WC, **Surgical Cooling Garment: Phase III**, abstract. Presented at Advances in Medical Technology: Bionanotechnology, The Seventh Annual BEACON Symposium and Technology Fair, Hartford Hospital, Hartford, CT, October 28, 2004.

McIsaac, JH, Bowers, M, Chen, S, Kaputa, D, **The Electronic Esophageal Stethoscope**. Presented at Advances in Medical Technology: Bionanotechnology, The Seventh Annual BEACON Symposium and Technology Fair, Hartford Hospital, Hartford, CT, October 28, 2004.

Blum, J, McIsaac, JH, **The Brain Temperature Tunnel: A Non-invasive Technique for Monitoring Core Temperature**, abstract. Presented at the 13th World Congress of Anesthesiologists, Paris, France, April 22, 2004.

Burns-Lambert, R, McIsaac, JH, **Fluid Flow Reduction During Rapid Transfusion Using The CLAVE™ Connector**, abstract. Presented at Advances in Medical Technology: Neural Engineering, The Sixth Annual BEACON Symposium and Technology Fair, Hartford Hospital, Hartford, CT, October 22, 2003.

Burns-Lambert, R, McIsaac, JH, **Fluid Flow Reduction During Rapid Transfusion Using The CLAVE™ Connector**, *Anesthesiology*, Supp., September, 2003, abstract. Presented at the Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 14, 2003.

Hook, K, Nelson, J, McIsaac, JH, **Virtual Instruments for Anesthesia Monitoring**, abstract, presented at the BEACON Technology Fair, Hartford, CT, October 12, 2001.

Nugent, J, Hook, K, McIsaac, JH, **Enhanced Electronic Esophageal Stethoscope**, abstract, presented at the BEACON Technology Fair, Hartford, CT, October 12, 2001.

Gross, J, McIsaac, JH, **Electromagnetic Compatibility of Cellular Telephones and Anesthesia Equipment**, Panel on Technology, Presented at the American Society of Anesthesiologists Annual Meeting, Dallas, TX, October 11, 1999.

McIsaac, JH, **Electromagnetic Fields in the Operating Room**, *Anesthesiology*, Supp., September, 1998, abstract. Presented at the American Society of Anesthesiologists Annual Meeting, Orlando, FL, October 21, 1998.

McIsaac, JH, Rouman, JC, Graydon, RJ, **The Effect of Anesthetic Type on Blood Loss and Hospital Length of Stay in Radical Retropubic Prostatectomy**, *Anesthesiology*, Supp., September, 1989, abstract. Presented at the Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 18, 1989.

### **Lectures**

Anesthesia for Mediastinal Masses

Bispectral Analysis: Functional Intra-operative Neurological Monitoring

Anesthesia for Radical Retropubic Prostatectomy

The Vascular Effects of General Anesthetics

Advanced Hemodynamics: A New Model of Vascular Mechanics

Diagnosis and Treatment of Post Cardiopulmonary Coagulopathy

Coagulation Issues in Cardiac Surgery

The Physics of Transesophageal Echocardiography

Color Doppler Transesophageal Echocardiography

Heparin Bonded Extracorporeal Circuits for Cardiopulmonary Bypass

Anesthesia for Burns

Medical Operations in Cold Weather

Medical Operations in a Desert Environment

Biological Warfare Threat Assessment

Chemical Warfare Threat Assessment

Medical Threat: Task Force DIRIGO (Guatemala)

**Lectures, Presentations, and Scientific Exhibits by Invitation**

“Hospital Preparation for Nuclear, Chemical, and Biological Disasters”

Grand Rounds, Department of Anesthesiology

University of Texas at Houston

Houston, Texas, February 28, 2008

“Electromagnetic Pulse, Communications, and Power Considerations for Medical Personnel”

Visiting Professor Resident Lecture

University of Texas at Houston

Houston, Texas, February 28, 2008

“Teaching NBC Casualty Management in Estonia—2007”

Multidisciplinary Trauma Committee

Hartford Hospital, Hartford, CT, February 13, 2008

“Teaching NBC Casualty Management in Estonia—2007”

Biomedical Engineering Alliance and Consortium (BEACON)

Hartford, CT, January 23, 2008

“Teaching NBC Casualty Management in Estonia—2007”

Grand Rounds, Department of Anesthesiology

Hartford Hospital, Hartford, CT, January 17, 2008

“Hospital Preparation for Nuclear, Chemical, and Biological Disasters”

Annual National Military Medical Meeting

Estonian National Defence College

Tartu, Estonia, December 6, 2007

Conference Organizer for the Seminar on Nuclear, Biological, Chemical Defense, and Simulation

Estonian National Defence College

Tartu, Estonia, December 3-5, 2007

Presentations:

“Decontamination and PPE”

“Electromagnetic Pulse, Communications, and Power Considerations for Medical Personnel”

“Hospital Preparation for Nuclear, Chemical, and Biological Disasters”

“Medical Management of Nerve Agent Casualties”

“Medical Management of Vesicant Casualties”

Simulation stations:

“Advanced Airway Instrumentation”

“Emergency Management of the Traumatized Pregnant Patient with Radiation Exposure”

“Emergency Management of a Multi-trauma Patient with Nerve Agent Exposure”

“Hospital Preparation for Disasters,”  
Department of Engineering  
Trinity College, Hartford, CT  
November 15, 2007

“Hospital Preparation for Disasters,”  
American Society of Anesthesiologists Annual Meeting, San Francisco, CA, October 16,  
2007.

“Radiation Hazards,” Workshop on All Hazards Considerations for Personal Protection  
and Airway Management, [American Society of Anesthesiologists Annual Meeting, San  
Francisco, CA, October 15, 2007.](#)

“Trauma Update 2007: After Action Report for the ‘June Surprise’ Exercise at Hartford  
Hospital”  
Grand Rounds, Department of Anesthesiology  
Hartford Hospital, Hartford, CT, June 28, 2007.

“Anesthetic Toxicity and the Developing Brain”  
Resident Seminar  
Department of Anesthesiology  
University of Connecticut School of Medicine  
Farmington, CT, June 19, 2007

“Coagulation Issues and Cardiac Surgery”  
Resident Seminar  
Departments of Anesthesiology  
University of Connecticut School of Medicine and Hartford Hospital  
Hartford, CT, June 4, 2007

“Post Cardiopulmonary Bypass Coagulopathy,”  
Resident Lecture, Department of Anesthesiology  
University of Connecticut School of Medicine  
Hartford, CT, May 4, 2007

“Hospital Preparation for Disasters”  
Grand Rounds, Department of Anesthesiology  
University of Connecticut School of Medicine  
Farmington, CT, April 4, 2007.

“Massive Left Atrial Myxoma with Outflow Obstruction,” Case Presentation, Grand  
Rounds, Department of Anesthesiology  
Hartford Hospital, Hartford, CT, March 29, 2007.

“Hospital Preparation for Bioterror: A Medical and Biomedical Systems Approach (Biomedical Engineering),” 2007 Seminar Series #2, Biomedical Engineering Alliance and Consortium, Hartford, CT, March 8, 2007.

“Powered Air Purifying Respirator Training for Hazardous Environments,” Simulator Center, Hartford Hospital, January 18, 2007.

“Hospital Preparation for Disasters,” Resident Didactic Night, Departments of Anesthesiology, Hartford Hospital and University of Connecticut School of Medicine, December 19, 2006.

“ASD in a Patient for Total Hip Arthroplasty,” Cardiac Subspecialty Update-2006, Grand Rounds, Department of Anesthesiology, Hartford Hospital, November 30, 2006

“Bioterror and Clinical Engineers, New England Society of Clinical Engineers, Farmington, CT, November 15, 2006.

“Hospital Systems Preparation,” *Management of Patients Exposed to Weapons of Mass Destruction Workshop*, American Society of Anesthesiologists Annual Meeting, Chicago, IL, October 15, 2006.

“Electromagnetic Interference.” Biomedical Engineering Seminar, University of Connecticut, Storrs, CT, September 21, 2006.

"Medical Management of Nuclear, Biological, and Chemical Casualty Resident Seminar" Departments of Anesthesiology  
Hartford Hospital and University of Connecticut School of Medicine, September 21, 2006.

“The Surgical Cooling Garment.” Presented at the MEDi2005 Medical Technology Conference and Exhibition, The Connecticut Convention Center, Hartford, CT, October 25, 2005.

“The Surgical Cooling Garment.” Presented at the MEDi2005 Medical Technology Conference and Exhibition, The Connecticut Convention Center, Hartford, CT, October 26, 2005.

"Medical Management of Nuclear, Biological, and Chemical Casualties: Resident Seminar with Hands-on Patient Simulation Using PAPRs," Department of Anesthesiology, Hartford Hospital, September 15, 2005

“Overview of Medical Management of Nuclear, Biological, and Chemical Casualties,” Grand Rounds, Department of Anesthesiology, Hartford Hospital, September 15, 2005

“Surgical Cooling Garment,” Hartford Metro Alliance, Hartford, CT, July, 12, 2005.

“Introduction to Bioterrorism,” Biomedical Engineering Seminar, University of Connecticut, Storrs, CT, February 8, 2005.

“Hospital Systems Preparation,” Management of Patients Exposed to *Weapons of Mass Destruction Workshop*, American Society of Anesthesiologists Annual Meeting, Las Vegas, NV, October 26, 2004.

"Medical Management of Nuclear, Biological, and Chemical Casualty Resident Seminar with Hands-on Simulation," Departments of Anesthesiology, Hartford Hospital and University of Connecticut School of Medicine, September 23, 2004

“How to Get in to Medical School,” Biomedical Engineering Seminar  
University of Connecticut School of Engineering, Storrs, CT, September 21, 2004

“Update in Anesthesia for Urological Surgery” and “Engineering Control Theory in Anesthesia Practice,” Grand Rounds, Department of Anesthesiology, Hartford Hospital, Hartford, CT, July 29, 2004

Trauma Update: “Hospital Preparation for WMD Events,” Grand Rounds, Department of Anesthesiology, Hartford Hospital, Hartford, CT, February 26, 2004

“Surgical Cooling Garment Study- Phase III,” Grand Rounds, Department of Perioperative Nursing, Hartford Hospital, December 11, 2003

“The Surgical Cooling Garment,” Advances in Medical Technology: Neural Engineering The Sixth Annual BEACON Symposium and Technology Fair, Hartford Hospital, Hartford, CT, October 22, 2003.

"Preparation for WMD Events," Weapons of Mass Destruction Workshop, American Society of Anesthesiologists Annual Meeting, San Francisco, CA, October, 15, 2003

"Management of Chemical and Biological Casualties," Grand Rounds, Department of Perioperative Nursing, Connecticut Children’s Medical Center, May 29, 2003

"Medical Management of Radiological Casualties," Grand Rounds, Department of Anesthesiology, Hartford Hospital, May 7, 2003

"Medical Management of Nuclear, Biological, and Chemical Casualty Resident Seminar"  
Departments of Anesthesiology  
Hartford Hospital and University of Connecticut School of Medicine, April 17, 2003

"Management of Radiological Casualties," Grand Rounds, Departments of Anesthesiology and Peri-operative Nursing, University of Connecticut School of Medicine, April 16, 2003

"Management of Chemical and Biological Casualties," Grand Rounds, Department of Orthopedic Surgery, Hartford Hospital, March 13, 2003

"Management of Chemical and Biological Casualties," Grand Rounds, Department of Peri-operative Nursing , Hartford Hospital, January 9, 2003

“Surgical Cooling Garment,” Cardiovascular Technologies: Medical Devices and Tissue Engineering. BEACON Symposium and Technology Fair, Hartford, CT, October, 31, 2002

“Palm OS Compatible Preoperative Record,” Abdul-Rahman, K., McIsaac, JH, Waberski, W. American Society of Anesthesiologists Annual Meeting, Orlando, FL , October 13-15, 2002

"Surgical Cooling Garment," Connecticut Innovations Technology Symposium Southington, CT, October 1, 2002

"Perioperative Care of the Trauma Patient," Multidisciplinary Conference, Hartford Hospital, May, 02, 2002

"Future Anesthesia Technology," Clinical Engineering Program, Biomedical Engineering University of Connecticut Graduate School, February 11, 2002

"Management of Chemical and Biological Casualties," Grand Rounds, Operating Room Staff, Department of Nursing, John Dempsey Hospital, University of Connecticut Health Center, January 9, 2002

"Management of Chemical and Biological Casualties," Grand Rounds, Department of Urology, University of Connecticut School of Medicine, December 20, 2001

"Management of Chemical and Biological Casualties," Grand Rounds, Department of Anesthesiology, University of Connecticut School of Medicine, November 7, 2001

"Management of Chemical and Biological Casualties," Grand Rounds, Department of Anesthesiology, Hartford Hospital, October 25, 2001

“Introducing Mountain Laurel Biomedical, LLC: Presentation of Research Areas of Interest," BEACON Technology Fair, GE Medical Systems, Wallingford, CT, February 16, 2001

"Bispectral Analysis: Functional Intra-operative Neurological Monitoring," Department of Electrical Engineering, University of Connecticut Graduate School, October 10, 1999

"Anesthesia for Urology," Grand Rounds, Department of Urology, University of Connecticut School of Medicine, November 20, 1997

**Professional and Technical Societies**

American Society of Anesthesiologists  
International Anesthesia Research Society  
Society of Cardiothoracic and Vascular Anesthesiologists  
Society of Ambulatory Anesthesia  
Anesthesia Patient Safety Foundation  
Connecticut State Society of Anesthesiologists  
American Medical Association  
Connecticut State Medical Society  
Hartford County Medical Association  
European Society of Anesthesiologists  
Institute of Electronic and Electronics Engineers (IEEE), **Senior Member**  
    IEEE Society of Engineering in Medicine and Biology  
    IEEE Electromagnetic Compatibility Society  
    IEEE Antennas and Propagation Society  
    IEEE Signal Processing Society  
American Society of Mechanical Engineers (ASME)  
    ASME Bioengineering Division  
    ASME Applied Mechanics Division  
    ASME Heat Transfer Division  
Biomedical Engineering Alliance of Connecticut  
Amateur Radio Relay League  
ASTM, International  
Disaster Preparedness and Emergency Response Association  
World Association for Disaster Emergency Medicine

**Directorships**

Board of Directors 2005-2007  
Hartford Anesthesiology Associates, Inc.  
111 Founders Plaza, Suite 300  
East Hartford, CT 06108

Board of Directors 2005-2007  
Hartford Anesthesiology Associates Foundation  
111 Founders Plaza, Suite 300  
East Hartford, CT 06108

Board of Directors  
Beach Park Point Association, Inc.  
Clinton, CT 06413 2002-2005

**Business Ventures**

**Founder, CEO, and Director of Research and Development**  
Mountain Laurel Biomedical, LLC 1998-2007  
52 Northington Drive

Avon, CT 06001

**Co-Founder and Managing Member** 2001-2002  
 Mountain Laurel Communications, LLC  
 One Congress Street, Suite 206A  
 Hartford, CT 06114

**Community Service**

American Heart Association Basic Life Support Instructor 2001-2006  
 Camp Physician, Beach Park Point Association Summer  
 Day Camp, Clinton, CT. 2001-2005  
 Connecticut Amateur Radio Emergency Service

**Academic Appointments**

**Adjunct Associate Professor**  
 University of Connecticut Graduate School\* 02-01-1998  
 Storrs, CT  
 Biomedical Engineering

**Assistant Clinical Professor of Anesthesiology**  
 University of Connecticut School of Medicine\* 08-01-1997  
 Farmington, CT

**Assistant Clinical Professor of Anesthesiology**  
 University of Pennsylvania School of Medicine 04-27-1990  
 Philadelphia, PA

**Lecturer in Anesthesiology**  
 University of Pennsylvania School of Medicine 12-01-1989  
 Philadelphia, PA

**Hospital Appointments**

Chief of Trauma Anesthesia  
 Chief of Urologic Anesthesia  
 Senior Staff  
**Hartford Hospital\*** 10-07-1991  
 Hartford, CT

Chief of Urologic Anesthesia  
**John Dempsey Hospital\*** 10-21-1997  
 University of Connecticut Health Center  
 Farmington, CT

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\* Present Appointments

<b>Connecticut Children's Medical Center*</b> Hartford, CT Staff Anesthesiologist	04-04-1996
<b>The Institute of Living</b> Hartford, CT Staff Anesthesiologist	09-01-1994
<b>Newington Children's Hospital</b> Newington, CT Staff Anesthesiologist	01-01-1992
<b>405<sup>th</sup> Combat Support Hospital</b> US Army Reserve West Hartford, CT Chief of Anesthesia	1991
<b>Philadelphia Naval Hospital</b> Philadelphia, PA Staff Anesthesiologist	04-04-1991
<b>Walson Army Community Hospital</b> Ft. Dix, NJ Staff Anesthesiologist	03-14-1991
<b>Walter Reed Army Medical Center</b> Washington, DC Staff Anesthesiologist	02-04-1991
<b>Mt. Sinai Hospital</b> Philadelphia, PA Staff Anesthesiologist	10-05-1989
<b>The Graduate Hospital</b> Philadelphia, PA Staff Anesthesiologist	07-01-1989
<b>819<sup>th</sup> Station Hospital</b> US Army Reserve West Hartford, CT General Medical Officer	1986

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· Present Appointments

**Supplemental Medical Training**

Hospital Incident Command System	2007
Hospital Management of Chemical, Biological, Radiological, Nuclear and Explosive Incidents Course, US Army Medical Research Institute of Chemical Defense, Edgewood, MD	2006
Pediatric Advanced Life Support	2005, 2007
Society of Cardiovascular Anesthesiologists Comprehensive Review of TEE	2005, 2006
Accuson Transesophageal Echocardiography (TEE) Optimization Course	1994
Hewlett-Packard TEE Teleconference	1994
Advanced TEE Course	1993
ASA Workshop on TEE	1992
Basic Life Support	1991, 1993, 2002
Basic Life Support Instructor	2002, 2004
Advanced Cardiac Life Support	1985, 1990, 2001
Pediatric Advanced Life Support	2005
PMSLIC Medicolegal Correspondence Course	1989
Advanced Subspecialty Training (PGY 4) Cardiac, Thoracic, and Vascular Anesthesia (4 months) Pediatric Anesthesia (4 months plus additional pediatric cardiac experience) Pain and Regional Anesthesia, Adult and Pediatric (2 months) Advanced Clinical Anesthesia (2 months)	1989
Advanced Trauma Life Support	1985

**FEMA Emergency Management Institute Courses Completed**

IS-100	Introduction to the Incident Command System
IS-200	ICS for Single Resources and Initial Action Incidents
IS-700	National Incident Management System (NIMS), an Introduction
IS-800.A	National Response Plan (NRP), an Introduction

**US Department of Homeland Security Courses**

Community Emergency Response Team (CERT) Program	
IS-317	Introduction to Community Emergency Response Teams

**Board Certification**

Testamur, National Board of Echocardiography	2007
Diplomate, American Board of Anesthesiology	04-27-1990
Diplomate, National Board of Medical Examiners	07-01-1986

**Medical Licenses**

Connecticut

Pennsylvania

**Civilian Honors and Awards**

Guide to America's Top Anesthesiologists, Consumer's Research Council of America	2007
Elected to Senior Member, Institute of Electrical and Electronic Engineers	2006
AMA Physician Recognition Award with Distinction	2005
AMA Physician Recognition Award	2002-2004
AMA Physician Recognition Award	1998-2001
AMA Physician Recognition Award	1993-1996
Delaware Valley Hospital Council Certificate of Recognition	1991
AMA Physician Recognition Award	1989
Tovell Award for Excellence in Research, Academics, and Clinical Medicine, Hartford Hospital	1989

**Special Credentials**

Intra-operative Transesophageal Echocardiography, Hartford Hospital, 1993-2007.

**Mentorships**

Premedical Student Advisor  
Department of Biomedical Engineering  
University of Connecticut School of Engineering, 2004-2007

Research Mentor for Hartford Hospital Summer Student Fellows, 1998-2007.

**Committee Membership**

**Section Chief, Anesthesia Resident Rotation for Echocardiography**

Residency in Anesthesiology  
University of Connecticut School of Medicine

**Committee on Trauma and Emergency Preparedness**, American Society of Anesthesiologists, October, 2007-2008.

**Working Group on Safe Hospitals**, World Association of Disaster and Emergency Medicine, Amsterdam, Netherlands, May 2007.

**ASTM Task Group on Hospital Preparedness**, Committee E54.02 on Emergency Preparedness, Training, & Procedures, 2007.

**Cardiac Anesthesia Steering Committee**, Hartford Hospital, Hartford, CT, 2006-2007.

**UConn Biomedical Engineering Constituency Committee**,

Department of Biomedical Engineering,  
School of Engineering, University of Connecticut, 2005

**Multidisciplinary Trauma Committee, 2003-2007.**

**High-Risk Cardiac Surgery Committee, 2006-2007.**

**Hartford Hospital Emergency Management Committee, 2003-2007.**

**Hartford Hospital Medical Staff Council. 2002-2003.**

**Biomedical Engineering Alliance and Consortium.** 1998-Present  
[www.beaconalliance.org](http://www.beaconalliance.org) An organization of academic, industrial and clinical medical researchers which collaborates to produce new medical devices, foster biomedical engineering education, and biomedical business opportunities. *Member of Steering Committee and Biotech Incubator.*

**Assistant Director of Education, Anesthesia Resident Education Committee,** University of Connecticut/Hartford Hospital Combined Residency in Anesthesiology, 1997-1998. *Responsible for academic content of the training program and resident recruitment. Developed a new curriculum incorporating state of the art teaching techniques. Emphasis on applying high technology medicine in a managed care environment. Lead developer of marketing materials including a new brochure and Web site.*

**Director, Medical Student Clerkship in Anesthesiology, University of Connecticut School of Medicine, 1998-1999.** *Responsible for coordinating the education of medical students rotating through the Department of Anesthesiology.*

**Staff Development and Education Committee,** Department of Anesthesiology, Hartford Hospital, 1997-1999. *Responsible for departmental education, conferences, lectures, etc. Current projects include development of a departmental “intranet” information resource.*

**Electromagnetic Compatibility Committee,** Hartford Hospital, 1996-Present. *Advises hospital on radio-frequency interference issues.*

**Executive Committee, Department of Anesthesiology,** Hartford Hospital, 1996-1997. *Committee advises the Director and makes major policy decisions for the department.*

**Hartford Hospital Materials Evaluation Committee,** 1997-Present. *Committee approves major acquisitions of medical supplies and systems throughout Hartford Hospital.*

**Chairman, Medical Capital Equipment Committee**, Department of Anesthesiology, Hartford Hospital and Connecticut Children’s Medical Center, 2003-2007. Member, 1994-Present. *Evaluate and approve major anesthetic equipment purchases. Current projects include acquisition of “intranet” linked anesthesia gas delivery machines, physiologic monitors, integrated anesthesia management software system and BIS® (“level of consciousness”) monitors.*

**Anesthesia Library Committee**, Department of Anesthesiology, Hartford Hospital, 1993-1997. *Directed purchase and installation of anesthesia educational and simulation software for the department. Recommended and assisted with purchase of textbooks for the new Tovell Library.*

**Chairman, New Physician Evaluation Task Force**, Department of Anesthesiology, Hartford Hospital and Hartford Anesthesiology Associates, Inc., 1995. *Developed criteria for evaluation of new attending anesthesiologists at Hartford Hospital and Hartford Anesthesiology Associates, Inc.*

**Anesthesia Resident Education Committee, Hartford Hospital Anesthesiology Residency**, 1993-Present. *Redesigned curriculum and instituted a reading program that resulted in a class of residents scoring in the 99<sup>th</sup> percentile on the National Board Examinations.*

**Research Subcommittee, Long Range Planning Committee**, Department of Anesthesiology, Hartford Hospital, 1993. *Made recommendations which led to implementation of an infrastructure to facilitate research as well as an internal research review committee.*

**MILITARY CAREER**

**Branch and Highest Rank**

Major  
Medical Corps  
United States Army Reserve

**Period of Service**

04-09-1982 to 10-27-1999  
Honorable Discharge

**Military Education**

Medical Management of Biological and  
Chemical Casualties Course,  
Ft. Detrick, MD and Edgewood Arsenal, MD

**Year Completed**

1993

Reserve Components Officer Advanced Course Phase I	1993
Range Safety Officer Course Ft. Devens, MA	1992
Deployable Medical Systems (DEPMEDS) Course Ft. Devens, MA	1992
Medical Management of Chemical Casualties 804th Hospital Center Boston, MA	1987
Basic Officer Branch Course Ft. Sam Houston, TX	1984
Health Issues and Mission Capability 804th Hospital Center Boston, MA	1994
Medical Issues in Areas of Global Tension 804th Hospital Center Boston, MA	1984
Managing the Acute Casualty 804th Hospital Center Boston, MA	1983
Health and the Stressful Environment 804th Hospital Center Boston, MA	1982

**US Decorations****Year Awarded**

Armed Forces Reserve Components Medal	1992
Superior Unit Citation (WRAMC)	1991
Army Achievement Medal 3 <sup>rd</sup> Oak Leaf Cluster	1991
Army Achievement Medal 2 <sup>nd</sup> Oak Leaf Cluster	1991
National Defense Service Medal	1991
Army Reserve Components Achievement Medal 1 <sup>st</sup> Oak Leaf Cluster	1990
Army Achievement Medal 1 <sup>st</sup> Oak Leaf Cluster	1987
Army Reserve Components Achievement Medal	1986
Army Achievement Medal	1984

**Record of Duty Assignment****Dates****United States Army Reserve Control Group**

1995 to 1999

(Reinforcement)

Army Personnel Center

9700 Page Boulevard

St. Louis, MO 63132-5200

**Chief Anesthesiologist**

1994-1995

405<sup>th</sup> Combat Support Hospital

West Hartford, CT 06110-1292

*Supervised 6 MD anesthesiologists and 12 nurse anesthetists in a 300-bed hospital. Prepared standard operating procedures and training for the anesthesia section resulting in the 405<sup>th</sup> CSH being ranked as No. 1 in the United States for medical readiness.*

**Anesthesiologist**

1991-1994

405<sup>th</sup> Combat Support Hospital

West Hartford, CT 06110-1292

*Special Project Officer for Nuclear, Biological, and Chemical Casualty Care. Developed training for physicians and nurses for treating nuclear, biological, and chemical warfare casualties. Unit Medical Intelligence Officer for Task Force DIRIGO, Fuertes Caminos (North) 1993. Prepared medical threat analysis and briefings for a large medical operation to Guatemala.*

**Anesthesiologist**

1991

F Company, 2<sup>nd</sup> Battalion

Medical Center Brigade

Walter Reed Army Medical Center

Washington, DC

*Operation Desert Storm. Temporary Duty to Walson Army Community Hospital, Ft. Dix, NJ and Philadelphia Naval Hospital, Philadelphia, PA. Provided anesthesia care to sick and wounded service members.*

**Anesthesiologist**

1989-1991

819<sup>th</sup> Station Hospital

West Hartford, CT 06110-1292

*Assistant Operations Officer. Range Safety Officer. Planned training and operations for a 300 bed hospital. Operated a field emergency room during exercises at Ft. Drum, NY.*

**Commander**

1987-1989

526<sup>th</sup> Medical Detachment (Dispensary)

West Hartford, CT

*Commanded, supervised, and trained a 10 member Rapid Deployment Force medical team. Prepared medical intelligence summaries, war plans, and planned military medical operations for a light, highly mobile field dispensary. Treated patients under simulated combat conditions in support of 8000 troops of the 50<sup>th</sup> Armored Division at*

*Ft. AP Hill, VA. Nuclear, Biological, Chemical Officer, Chemical Detection Team Leader, Radiological Monitoring Team Leader, Physical Security Officer, Arms Officer. Developed "Emergency Medical Handbook" that was used as a prototype for the Army's "Chemical Handbook."*

**General Medical Officer**

1986-1987

Physical Examination Section

819<sup>th</sup> Station Hospital

West Hartford, CT

*Performed physical examinations. Operated emergency field treatment station at Ft. Campbell, KY in support of Basic Training.*

**Field Medical Assistant**

1982-1986

Training Section

819<sup>th</sup> Station Hospital

West Hartford, CT

*Instructor for Expert Field Medical Badge Course. Trained unit personnel in military tasks. Performed emergency field medical treatment.*