

CURRICULUM VITAE
BIOGRAPHICAL

Name: Nicholas G. Bircher, MD, FCCM Birth Date: November 24, 1954
Birth Place: Seattle, Washington Citizenship: U.S.A.

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EDUCATION AND TRAINING

UNDERGRADUATE:

Dates attended	Name and location of institution	Degree received and year	Major subject
9/73-6/77	Harvard University Cambridge, MA	AB., 1977	Chemistry and Physics

GRADUATE:

Dates attended	Name and location of institution	Degree received and year	Major subject
8/77-5/81	University of Pittsburgh Pittsburgh, PA	M.D., 1981	Medicine

POSTGRADUATE:

Dates Attended	Name and Location of Institution	Name of Program Director and Discipline
7/81-6/82	University of Pittsburgh Pittsburgh, PA 15261	Henry T. Bahnson, M.D. Intern, Surgery
7/82-6/84	University of Pittsburgh Pittsburgh, PA 15261	Peter M. Winter, M.D. Resident, Anesthesiology/CCM
7/88-6/90	University of Pittsburgh Pittsburgh, PA 15261	Ake N. A. Grenvik, M.D., Ph.D. Fellow, Critical Care Medicine
7/89-6/90	International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA 15260	Peter Safar, M.D. Research Fellow

APPOINTMENTS AND POSITIONS

ACADEMIC:

Years Inclusive	Name and Location of Institution or Organization	Rank/Title
10/84-6/88	Uniformed Services University of the Health Sciences Department of Anesthesiology, Bethesda, MD	Assistant Professor
7/84-6/89	University of Pittsburgh, Department of Anesthesiology/ Critical Care Medicine, Pittsburgh, PA 15260	Visiting Assistant Professor
7/89-6/96	University of Pittsburgh, Department of Anesthesiology/ Critical Care Medicine, Pittsburgh, PA 15260	Assistant Professor
7/96-12/01	University of Pittsburgh, Department of Anesthesiology/ Critical Care Medicine, Pittsburgh, PA, 15260	Associate Professor
12/01-6/07	University of Pittsburgh, Department of Critical Care Medicine (secondary appointment), Pittsburgh, PA, 15260	Associate Professor
12/01-6/17	University of Pittsburgh, Department of Anesthesiology, Pittsburgh, PA, 15260	Associate Professor
9/17-present	University of Pittsburgh, Department of Anesthesiology and Perioperative Medicine, Pittsburgh, PA, 15260	Associate Professor Emeritus
9/19-present	University of Pittsburgh, Department of Nurse Anesthesia, Pittsburgh, PA 15261	Professor

NON-ACADEMIC:

Years Inclusive	Name and Location of Institution or Organization	Rank/Title or Position
6/73-8/77	Camp Mayhew, Bristol, NH	Medical Director
4/79-6/84	International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA 15261	Coordinator, Cardiopulmonary Research
4/82-6/84	Pennsylvania Affiliate, American Heart Association	Advanced Cardiac Life Support Affiliate Faculty
2/83-6/84	International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA 15261	Assistant Director for Laboratory Affairs
7/84-6/88	Department of Anesthesia, Naval Hospital, Bethesda, MD	Staff Anesthesiologist
7/84-6/88	Pain Clinic, Department of Anesthesia, Naval Hospital, Bethesda, MD	Attending Physician
8/84-8/86	Pain Clinic, Department of Anesthesia, Naval Hospital, Bethesda, MD	Co-Director
8/84-9/86	Department of Anesthesia, Naval Hospital, Bethesda, MD	Quality Assurance/Risk Management Officer
10/84-6/88	United States Navy, Mobile Medical Augmentation Readiness Team, Bethesda, MD	Anesthesiologist, Surgical Teams Two and Four

11/84-10/87	Surgical Directorate, Naval Hospital, Bethesda, MD	Coordinator, Quality Assurance/Risk Management
9/86-6/88	American Heart Association, Montgomery County Division, Maryland Affiliate	Basic Life Support Affiliate Faculty
11/86-11/88	Military Training Network	Advanced Cardiac Life Support Affiliate Faculty
11/86-2/87	Surgical Team Four, Amphibious Squadron Eight USS SAIPAN (LHA-2)	Anesthesiologist
11/86-2/87	USS SAIPAN (LHA-2)	Duty General Medical Officer
12/87	Naval Hospital, Department of Anesthesia, Philadelphia, PA	Acting Director, Clinical Anesthesia
7/89-6/96	University of Pittsburgh School of Medicine, Department of Surgery, Pittsburgh, PA	Laboratory Instructor in Anesthesia, Third Year Medical Students' Rotation
7/89-6/17	Department of Anesthesiology, University of Pittsburgh Medical Center, Pittsburgh, PA	Staff Anesthesiologist,
7/89-8/96	Montefiore University Hospital, Critical Care Medicine Division, Surgical Intensive Care Unit, Pittsburgh, PA	Attending Intensivist
7/89-8/96	Montefiore University Hospital, Critical Care Medicine Division, Surgical Intensive Care Unit, Pittsburgh, PA	Associate Director
7/89-7/94	University of Pittsburgh, International Resuscitation Research Center, Pittsburgh, PA	Associate Director, Laboratory Research
8/90-6/17	University Health Center of Pittsburgh, Department of Anesthesiology/Critical Care Medicine, Pittsburgh, PA	Lecturer, Anesthesiology Residency
8/90-01/02	Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA	Advisor/Moderator, CA-2 Lecture Series, Anesthesiology Residency
12/90-3/92	Surgical Intensive Care Unit, Montefiore Hospital, University of Pittsburgh Medical Center, Pittsburgh, PA	Acting Director
3/91-6/07	Presbyterian-University Hospital, Division of Critical Care Medicine, Pittsburgh, PA	Attending Intensivist
8/91-Present	Anesthesia Graduate Nursing Program, University of Pittsburgh School of Nursing, Pittsburgh, PA	Research Preceptor
11/91-6/93	University of Pittsburgh Medical Center, Department of Anesthesiology/Critical Care Medicine, Pittsburgh, PA	CA-3 Tutor
7/92-12/95	University of Pittsburgh School of Medicine,	Instructor, Third and Fourth Year Medical

	Division of Critical Care Medicine, Pittsburgh, PA	Students' Rotations
1/93-7/01	Planning & Budgeting Committee, School of Medicine, University of Pittsburgh	Member
6/93-6/03	University of Pittsburgh Medical Center, Health Sciences Education Program, Center for Continuing Education, Pittsburgh, PA	Lecturer
7/94-present	University of Pittsburgh School of Nursing, Nurse Anesthesia Program, Pittsburgh, PA	Instructor, SRNA Physical Diagnosis Course
7/94-6/07	University of Pittsburgh Medical Center, Ethics Committee, Pittsburgh, PA	Supervising Physician, Non-heart-beating Donor Program
7/94-7/01	University of Pittsburgh, Safar Center for Resuscitation Research, Department of Anesthesiology/CCM, Pittsburgh, PA	Associate Director, Cardiopulmonary Arrest Program
9/94-12/97	Coalition of Acute Resuscitation and Critical Care Researchers, FDA/NIH Consensus Conference on Informed Consent in Resuscitation Research, Bethesda, MD	Society of Critical Care Medicine Representative
4/95-1/01	Senior Vice Chancellor-Health Sciences Planning & Budgeting Committee, University of Pittsburgh, Pittsburgh, PA	Member
6/95-12/95	Subcommittee for Guidelines on Reallocation of Funds, Senior Vice Chancellor-Health Sciences Planning & Budgeting Committee, University of Pittsburgh, Pittsburgh, PA	Member
8/93-1/01	Planning & Budgeting Committee, School of Medicine, University of Pittsburgh	Chair
5/97-6/06, 7/07-present	University Senate, University of Pittsburgh, Pittsburgh, PA	Member, Faculty Assembly
7/97-6/02	Department of Anesthesiology/ Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA	Mortality and Morbidity Conference Coordinator
7/97-8/02	Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA	Member, Quality Improvement Committee
11/97-10/01	Health Sciences Committee of the Board of Trustees, University of Pittsburgh, Pittsburgh, PA	Faculty Representative
5/98-3/99	Ad Hoc University of Pittsburgh Physicians Faculty Oversight Committee, School of Medicine, University of Pittsburgh, Pittsburgh, PA	Member
6/98-9/03	University of Pittsburgh Physicians, University of Pittsburgh Medical Center, Pittsburgh, PA	Member, Compliance Advisory Committee
6/98-6/99	Subcommittee on Secondary/Voluntary Faculty Appointments, Department of Anesthesiology/Critical Care	Member

Medicine, University of Pittsburgh, Pittsburgh, PA

7/98-6/06	University Senate, University of Pittsburgh, Pittsburgh, PA	Member, Senate Council
1/01-9/07	Anesthesiology Critical Care Fellowship, Multidisciplinary Critical Care Training Program, University of Pittsburgh Medical Center, Pittsburgh, PA	Director
1/01-6/07	Neurovascular Intensive Care Unit, Department of Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA	Co-Director
5/01-6/07	Department Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA	Resource Intensivist
7/01-6/09	Cardiopulmonary Arrest Program Safar Center for Resuscitation Research, University of Pittsburgh, Pittsburgh, PA	Scientist Emeritus
9/02-06/03	University Senate, University of Pittsburgh, Pittsburgh, PA	Vice-President
7/03-06/05	University Senate, University of Pittsburgh, Pittsburgh, PA	President
7/03-06/05	University Planning and Budget Committee, University of Pittsburgh, Pittsburgh, PA	Member
11/03-6/05	Medical Advisory Committee, Human Resources, University of Pittsburgh, Pittsburgh, PA	Ex-Officio Member
3/05-2/08	Ad Hoc Committee on Consumer Satisfaction with the UPMC, University Senate, University of Pittsburgh, Pittsburgh, PA	Member
3/05-12/13	American College of Critical Care Medicine Des Plaines, IL	Co-Chair, Glycemic Control Task Force
7/05-06/06	University Senate, University of Pittsburgh, Pittsburgh, PA	Immediate Past President
9/05-8/09	Budget Committee of the Board of Trustees, University of Pittsburgh, Pittsburgh, PA	Faculty Representative
7/06-2/08	Ad Hoc Committee on Consumer Satisfaction with the UPMC, University Senate, University of Pittsburgh, Pittsburgh, PA	Chair
7/07-6/13	Bylaws and Procedures Committee, University Senate, University of Pittsburgh, Pittsburgh, PA	Chair
7/09-present	Cardiopulmonary Arrest Program, Safar Center for Resuscitation Research, School of Medicine, University of Pittsburgh, Pittsburgh, PA	Scientist Emeritus
7/10-present	Special Task Force for the Reshaping the System of Survival for Sudden Cardiac Arrest, Center for Organizational Dynamics, School of Arts and Sciences, University of Pennsylvania, Philadelphia, PA	Member

9/12-8/16	Risk and Compliance Committee of the Board of Trustees, University of Pittsburgh, Pittsburgh, PA	Faculty Representative
4/12-6/16	Ad Hoc Committee on Transgender Issues, University Senate, University of Pittsburgh, Pittsburgh, PA	Member
7/13-5/18	Bylaws and Procedures Committee, University Senate, University of Pittsburgh, Pittsburgh, PA	Pro Tem Member and Co-Chair
4/14-present	Tenure and Academic Freedom Committee, University Senate, University of Pittsburgh, Pittsburgh, PA	Pro tem Member
4/14-6/16	Subcommittee on Academic Freedom and Electronic Media, Tenure and Academic Freedom Committee, University Senate, University of Pittsburgh, Pittsburgh, PA	Pro tem Member
6/14-6/16	Ad Hoc Committee to Review Guidelines for the Evaluation of Tenured Faculty and Associated Salary Decisions, University Senate, University of Pittsburgh, Pittsburgh, PA	Member
2/15-present	Digital Ethics Working Group of the Standing Committees of the University Senate, University of Pittsburgh, Pittsburgh, PA	Member
9/15-3/16	Planning Committee, "Academic Freedom in the 21 st Century: Challenges and Opportunities," Plenary Session, University Senate, University of Pittsburgh, Pittsburgh, PA	Member
10/15-present	Investigative Subcommittees, Tenure and Academic Freedom Committee, University Senate, University of Pittsburgh, Pittsburgh, PA	Pro tem Member
11/15-present	Use of Personal Protective Equipment to Ensure Safety (UPPEES) Task Force, (Ja Hyun Kang, Principle Investigator) School of Nursing, University of Pittsburgh, Pittsburgh, PA	Member and Critical Care Consultant
6/18-present	Bylaws and Procedures Committee, University Senate, University of Pittsburgh, Pittsburgh, PA	Member and Chair

Military

11/16/77	Commissioned Ensign, Medical Corps, United States Naval Reserve, (Armed Forces Health Professions Scholarship)
6/19/81	Promoted to Lieutenant, Medical Corps, United States Naval Reserve
8/83-10/83	Physical Examination Officer, Navy and Marine Corps Reserve Center, Pittsburgh, PA
10/83	Anesthesiologist, NR NH Portsmouth DET 705, Navy and Marine Corps Reserve Center, Pittsburgh, PA.
7/84-6/88	Staff Anesthesiologist (Active Duty), Naval Hospital, Bethesda, MD
7/2/85	Frocked to Lieutenant Commander, Medical Corps, United States Naval Reserve

6/1/86 Promoted to Lieutenant Commander, Medical Corps, United States Naval Reserve

10/88 Selected Reservist, Navy and Marine Corps Reserve Center, Pittsburgh, PA.

2/89-3/89 PRIMUS Officer, NR PRIMUS UNIT P2501, Pittsburgh, PA

4/89-7/91 PRIMUS Officer, NR MED UNIT PO518A, Cleveland, OH

2/90 Selected as Commanding Officer, PRIMUS Unit, University of Pittsburgh

3/90-4/94 Company D, 4th Medical Battalion, 4th Fleet Service Support Group, 4th Marine Division

5/90 Selected for Promotion to Commander, Medical Corps, United States Naval Reserve

7/91-10/92 Officer-in-Charge, NR MED UNIT PO552A, Pittsburgh, PA

10/92-4/94 Officer-in-Charge, Fleet Hospital 250 CBTZ 7 (PRIMUS, RUIC 83379), NAVMARCORESCEN, Pittsburgh, PA

12/92-4/94 Head, Anesthesia Department, NR Fleet Hospital 250 CBTZ 7

2/93-7/93 Officer-in-Charge, Surgical Directorate Functional Team Training, NR Fleet Hospital 250 CBTZ 7

4/94-8/01 Individual Ready Reserve

8/01 Honorably Discharged

Military Medals Navy Commendation Medal, Navy Achievement Medal, Sea Service Ribbon, Expert Rifle Ribbon, Pistol Qualification Ribbon

Military Courses Taken:

7/11-8/78 Officer Indoctrination Course, Naval Education and Training Center, Newport, RI

7/78 Ground School, Class A Mate, Navy Yacht Club of Newport, RI

7/78 Skipper School, Class B, Mercury, Navy Yacht Club of Newport, RI

5/84-6/84 Combat Casualty Care (Correspondence Course NAVEDTRA 13122), Naval Health Sciences Education and Training Command, Bethesda, MD

7/9-7/20/84 Officer Indoctrination Course, Naval Hospital, Portsmouth, VA

8/84-9/84 Field Medical Service (Correspondence Course NAVEDTRA 13124), Naval Health Sciences Education and Training Command, Bethesda, MD

1/5-1/19/85 Landing Force Medical Staff Planning (H-6A-3216), Landing Force Training Command, Pacific, Naval Amphibious Base, Coronado, San Diego, CA

2/11-2/13/85 Advanced Trauma Life Support Instructor's Course, Uniformed Services University of the Health Sciences, Bethesda, MD

4/85-5/85 Clinical Aspects of Cold Weather (Correspondence Course NAVEDTRA 10519), Naval Health Sciences Education and Training Command, Bethesda, MD

6/17-6/21/85 Field Medical Service School, Marine Corps Base, Camp Pendleton, CA

8/85-9/85	Treatment of Chemical Agent Casualties (Correspondence Course NAVEDTRA 10765-B1), Naval Health Sciences Education and Training Command, Bethesda, MD
5/28-5/30/86	Quality Assurance Executive Management Workshop, Naval Medical Command, National Capital Region, Bethesda, MD
3/86-9/86	Principles of Epidemiology (Correspondence Course NAVEDTRA 13123-8212), Naval Health Sciences Education and Training Command, Bethesda, MD
9/86	Standard Pistol Qualification Course, United States Secret Service Training Center, Beltsville, MD
10/14/86	Helicopter Egress Training, Aviation Physiology Unit, Naval Air Station, Norfolk, VA
11/13/86	Standard Rifle (M16) Qualification Course, United States Secret Service Training Center, Beltsville, MD
6/18-1987	Medical Effects of Nuclear Weapons, Armed Forces Radiobiology Research Institute, Bethesda, MD.
8/7-15/87	Armed Forces Combat Casualty Care Course (6A-C4), Medical Corps Tactical Officer, Academy of Health Sciences, United States Army, Fort Sam Houston, TX
9/25/87	Nuclear, Biological, and Chemical Weapons Defense Briefing, Commanding General's Staff, Second Marine Division, Fleet Marine Force, presented at Naval Hospital, Bethesda, MD.
2/26/88	Combat Casualty Care, Naval Hospital, Bethesda, MD
3/18/88	Shipboard Medicine, Naval Hospital, Bethesda, MD
9/13/92	Sexual Harassment & Discrimination Complaint/Grievance Procedures, NAVMARCORESCEN, Pittsburgh, PA
1/23-24/93	Naval Reserve Fleet Hospital 250 CBTZ 7 Training Conference, NAVMARCORESCEN, Vienna, OH

CERTIFICATION and LICENSURE SPECIALTY CERTIFICATION:

Certifying Board	Year
American Board of Anesthesiology	1987
American Board of Anesthesiology, Certificate of Special Competence in Critical Care	1991

MEDICAL or OTHER PROFESSIONAL LICENSURE:

Licensing Board/State	Year
National Board of Medical Examiners	1982
Pennsylvania Medical License	1982
Maryland Medical License	1984

MEMBERSHIPS in PROFESSIONAL and SCIENTIFIC SOCIETIES

Year	Organization
1973-1984	American National Red Cross
1981-1984, 2007-present	Pennsylvania Society of Anesthesiology
1981-1984	Western Pennsylvania Society of Anesthesiologists
1985-1988	Maryland - D.C. Society of Anesthesiologists

1973-1996	American Heart Association
1977-1996	American Medical Association
1977-1980	Association of Harvard Chemists
1981-present	American Society of Anesthesiologists
1981-1984	International Anesthesia Research Society
1983-1996	World Association for Emergency and Disaster Medicine (Club of Mainz)
1983-present	American Association for the Advancement of Science (Life Membership Number 01472089)
1983-1985	International Society on Disaster Medicine
1983-1985	Physicians for Social Responsibility
1984-present	Association of Military Surgeons of the United States (Life Member)
1985-present	Society of Critical Care Medicine
1986-1998	American College of Emergency Physicians
1986-present	United States Naval Institute (Life Membership C00074185)
1986-present	Association of the United States Navy (Life Membership Number 243539)
1986-present	New York Academy of Sciences (Life Member)
1987-1996	Anesthesia Patient Safety Foundation
1988-1995	International Physicians for the Prevention of Nuclear War
1988-1998	International Trauma Anesthesia and Critical Care Society
1988-1998	Pennsylvania Chapter, American College of Emergency Physicians
1989-1992	American College of Chest Physicians
1989-1996	American Trauma Society
1990-1996	Pennsylvania Medical Society
1990-1996	Allegheny County Medical Society
1990-1996	National Association of Emergency Medical Services Physicians
1991-1996	American Association for Laboratory Animal Science, Three Rivers Branch
1991-1992	International Society of Pathophysiology
1992-present	Fellow, American College of Critical Care Medicine
1993-present	Association of University Anesthesiologists

HONORS

Year	Title of Award
1973	National Merit Semi-finalist
1973	Godfrey Lowell Cabot Scholarship, Harvard University
1976	Research Assistantship, Chemistry, Physics, and Applied Physics, Harvard University
1977	Navy Armed Forces Health Professions Scholarship
1979	Gene Barry Award for CPR Education, Western Pennsylvania Heart Association
1979	American National Red Cross 300 Hour Certificate of Appreciation
1980	Undergraduate Research Prize, American Heart Association, Pennsylvania Affiliate
1980	Elected to Wolf Creek Club of Resuscitation Researchers
1981	Invited Lecturer, International Symposium on First Aid in Cardiopulmonary Resuscitation, Hypothermia and Frostbite, Copenhagen
1981	Third Prize, Pittsburgh Academy of Medicine Annual Resident's Day
1981	Honorable Mention, Dr. I. Arthur Mirsky Award, University of Pittsburgh.
1981	Undergraduate Research Prize, American Heart Association, Pennsylvania Affiliate
1981	Appointed to Recommendations Committee on Cardiopulmonary Cerebral Resuscitation Education, Second World Congress on Emergency and Disaster Medicine, Pittsburgh, PA.
1983	Elected to Club of Mainz Association for Emergency and Disaster Medicine Worldwide
1983	Research Honor Roll, American Heart Association, Pennsylvania Affiliate
1983	Appointed Co-Chairman, Wolf Creek III Symposium on Resuscitation Research

1983 Appointed to Allegheny County Emergency Medical Services Council
 1984 Appointed to World Federation of Societies of Anesthesiologists CPR Committee
 1984 Appointed to Disaster Planning Committee, Allegheny County Emergency Medical Services Council
 1984 Elected Fellow of the New York Academy of Sciences
 1984 Invited Expert, Federal Emergency Management Agency (FEMA) Planning Conference on Emergency Health and Medical Training for Disasters and Mass Casualty Incidents, November, 1984.
 1985 Certificate of Appreciation, 1985 Armed Forces Inaugural Committee
 1985 Chaired two scientific sessions, "Airway and Ventilation" and "Future Directions"; Third World Creek Conference on Cardiopulmonary Resuscitation.
 1985 Chaired scientific session, "International Medical Systems"; Fourth World Congress on Emergency & Disaster Medicine
 1985 Appointed to Committee on Critical Care, American College of Emergency Physicians
 1985 Command Commendation for Quality Assurance, Naval Hospital, Bethesda, MD.
 1986 Navy Achievement Medal (Quality Assurance)
 1986 Physicians Recognition Award, American Medical Association
 1986 Selected Reviewer for Manuscripts of American Heart Association, 1985 Standards Conference
 1987 Selected as Medical Corps Tactical Officer, Armed Forces Combat Casualty Care Course, Academy of Health Sciences, United States Army, Fort Sam Houston, TX
 1988 Invited Guest of Honor, 1st Annual Trauma Anesthesia and Critical Care Symposium, Washington, D.C.
 1988 CPR Program Appreciation Award (Basic Life Support Affiliate Faculty), Montgomery County Division, Maryland Affiliate, American Heart Association, Bethesda, MD.
 1988 Navy Commendation Medal (Basic and Advanced Cardiac Life Support Programs).
 1988 Letter of Appreciation, Naval Reserve Readiness Command Region Six, Washington, D.C.
 1989 Moderator, Section on Disaster Medicine, International Emergency/Disaster Medicine Symposium, Beijing, China
 1990 Physicians Recognition Award, American Medical Association
 1991 Invited Expert, United States Department of Transportation Conference on Bystander Care, Miami, FL
 1991 Moderator, Scientific Abstract Session (Poster), 4th Annual Trauma Anesthesia and Critical Care Symposium, Baltimore, MD
 1991 Moderator, Scientific Abstract Session (Free Paper), 4th Annual Trauma Anesthesia and Critical Care Symposium, Baltimore, MD
 1991 Appointed to International Scientific Advisory Board, Eighth World Congress on Emergency and Disaster Medicine
 1991 Co-Chairman with Vladimir Negovsky, Scientific Session 16.1, "Mechanisms and Methods of Correction of Post-resuscitation Pathology," Constituent Congress, International Society for Pathophysiology, Moscow, USSR
 1991 Selected as Team Member, Panel on Acid-Base Management, Preliminary Fact-Finding Exercise, Emergency Cardiac Care Committee, American Heart Association
 1991 Co-Chairman of Two Scientific Sessions, 7th International Symposium on Cardiopulmonary Urgencies and Emergencies, Rotterdam, The Netherlands
 1992 Fellow, American College of Critical Care Medicine
 1992 Honored Faculty Member, Honors Convocation, University of Pittsburgh
 1992 Invited Panelist, Panel on Acid Base Management, National Conference on Cardiopulmonary Resuscitation and Emergency Cardiac Care, Emergency Cardiac Care Committee, American Heart Association
 1992 Co-Moderator, Original Scientific Paper: Poster Discussion Presentations Session, 21st Annual Educational and Scientific Symposium, Society of Critical Care Medicine, San Antonio, TX
 1992 Moderator, Scientific Abstract Sessions, 5th Annual Trauma Anesthesia and Critical Care Symposium, Amsterdam, The Netherlands
 1992 Invited Scientific Session Chairman, Tenth World Congress of Anesthesiologists, The Hague, The Netherlands
 1992 Highest Departmental Merit Score, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh
 1993 Honored Faculty Member, Honors Convocation, University of Pittsburgh
 1993 Elected to Membership in the Association of University Anesthesiologists

- 1993 Moderator, Original Scientific Papers: Oral Presentations Session, 22nd Annual Educational and Scientific Symposium, Society of Critical Care Medicine, New York, NY
- 1993 Visiting Professor, Department of Anesthesiology, Rush Presbyterian St. Luke Medical Center, Rush Medical College, Chicago, IL
- 1993 Moderator, Original Scientific Papers: Oral Presentations Session, Second International Urban Emergency Medical Services Symposium, Beijing, China
- 1994 Moderator, Original Scientific Papers: Oral Presentations Session, 23rd Annual Educational and Scientific Symposium, Society of Critical Care Medicine, Orlando
- 1994 Honored Faculty Member, Honors Convocation, University of Pittsburgh,
- 1994 Appointed to Medical Advisory Board, Laerdal Medical Corporation USA, Armonk, NY
- 1994 Faculty Opponent, Doctoral Thesis Defense, Faculty of Medicine, University of Uppsala, Sweden
- 1994 Invited Guest-of-Honor and Speaker, Seventh Annual Trauma Anesthesia and Critical Care Symposium, Paris,
- 1994 Invited Commentator, Session on Waiver of Consent in Emergency Research, Changes and Choices for Institutional Review Boards: The Inclusion of Women and Minorities, and Other Emerging Issues in Research, Sponsored by Public Responsibility in Medicine & Research (PRIM&R), Boston
- 1995 Moderator, Original Scientific Papers: Oral Presentations Session, 24th Annual Educational and Scientific Symposium, Society of Critical Care Medicine, San Francisco, CA
- 1996 Consultant Reviewer, National American Heart Association Lung and Development Grant-in-Aid Committee,
- 1996 Invited Speaker, 25th Annual Educational and Scientific Symposium, Society of Critical Care Medicine, New Orleans, LA,
- 1996 Invited Speaker, Wolf Creek IV Conference of Resuscitation Researchers, Palm Springs
- 1996 Appointed to Medical/Educational Advisory Board, Early Defibrillation Program, Catalyst Research and Communications, Carmel, IN
- 1996 Visiting Professor, Seventh International Course on Intensive Care "Jose Manuel Velasco Silez," Hospital Magdalena de las Salinas, Mexico City, Mexico
- 1996 Certificate of Recognition and Honorary Medical Staff Appointment, Hospital Juarez de Mexico, Mexico City, Mexico
- 1997 Co-recipient, Second Place, Research Division, Mary Hanna Memorial Journalism Award, Journal of PeriAnesthesia Nursing
- 1998 Invited International Expert, Pan American Congress on Emergency Medicine and Disasters, College of Physicians and Surgeons of Costa Rica and World Association for Emergency and Disaster Medicine, San Jose
- 1999 Invited Topic Expert, American Heart Association, Second International Evidence Evaluation Conference, Dallas
- 2000 Invited Topic Expert, American Heart Association, International Guidelines 2000 Conference on CPR and ECC, Dallas
- 2000 Invited International Expert, Cerebral Acidosis, Postresuscitative and Initial Utility in Life Saving Efforts, National Institutes of Health, Reston, VA
- 2000 Stephen C. Finestone Clinical Instructor Award, Nurse Anesthesia Program, Department of Acute and Tertiary Care, School of Nursing, University of Pittsburgh
- 2002 Invited Topic Expert, American Heart Association, Conference on CPR and ECC, Dallas, October, 2002
- 2003 Invited Expert, Wolf Creek VII Conference of Resuscitation Researchers, Palm Springs, June, 2003
- 2005 Invited Science Expert, International Consensus Conference on Emergency Cardiac Care and Cardiopulmonary Resuscitation Science with Treatment Recommendations (C2005), International Liaison Committee on Resuscitation and American Heart Association, Dallas, TX
- 2005 Selected as Co-Chair, Glycemic Control Task Force, American College of Critical Care Medicine
- 2007 Invited Speaker, "Hypothermia after TBI 2007," It's Hip to Be Cool: Hypothermia and the Injured Brain, Society of Neurosurgical Anesthesia & Critical Care Breakfast Panel, American Society of Anesthesiologists Annual Meeting
- 2008 Invited Speaker, Consensus on Outcomes for Resuscitation Science Conference, American Heart Association, Washington, D.C.
- 2009 Presidential Citation, Society of Critical Care Medicine
- 2010 Presidential Citation, Society of Critical Care Medicine
- 2010 Appointed to Special Task Force for the Reshaping the System of Survival for Sudden Cardiac Arrest, Center for Organizational Dynamics, School of Arts and Sciences, University of Pennsylvania, Philadelphia, PA
- 2011 Presidential Citation, Society of Critical Care Medicine
- 2011 Winner, Outstanding Service Award, University Senate, University of Pittsburgh, Pittsburgh, PA

2012 Presidential Citation, Society of Critical Care Medicine
2012 Invited Speaker, 10th China-International Modern Emergency and Disaster Medicine Forum 2012, Beijing, China
2014 Elected to Fellowship, Institute of Systems Wisdom, Philadelphia, PA
2018 Selected as Co-Chair, Glycemic Control Task Force, American College of Critical Care Medicine

PUBLICATIONS

A. Original Referreed Articles

1. Bircher N, Safar P, Stewart R: A comparison of standard, "MAST"-augmented and open-chest CPR in dogs: a preliminary investigation. *Crit Care Med* 8:147-152, 1980
2. Babbs CF, Bircher N, Burkett DE, Frissora HA, Hodgkin BC, Safar P: Effect of thoracic venting on arterial pressure and flow during external cardiopulmonary resuscitation. *Crit Care Med* 9:785-788, 1981
3. Bircher N, Safar P, Eshel G, Stezoski W: Cerebral and hemodynamic variables during cough-induced CPR in dogs. *Crit Care Med* 10:104-107, 1982
4. Bircher N, Safar P: A comparison of standard and "new" CPR in dogs. *Disaster Medicine* 1:223-226, 1983; *Prehospital and Disaster Medicine* 1 (Suppl 1):223-226, 1985
5. Bircher N, Safar P: Advantages of open- chest CPR (OCCPR). *Disaster Medicine* 1:230-232, 1983; *Prehospital and Disaster Medicine* 1 (Suppl 1):230-232, 1985
6. Lesser R, Bircher N, Safar P, Stezoski W: Sternal compression before ventilation in cardiopulmonary resuscitation (CPR). *Disaster Medicine* 1:239-241, 1983; *Prehospital and Disaster Medicine* 1 (Suppl 1):239-241, 1985
7. Alifimoff JK, Safar P, Bircher NG: Opening the chest to keep the brain alive in prolonged cardiopulmonary resuscitation (CPR). *Disaster Medicine* 1:233-236, 1983; *Prehospital and Disaster Medicine* 1 (Suppl 1):233-236, 1985
8. Alifimoff JK, Safar P, Bircher N: Limitations of abdominal binding during CPR. *Disaster Medicine* 1:227-229, 1983; *Prehospital and Disaster Medicine* 1 (Suppl 1):227-229, 1985
9. Brader E, Klain M, Safar P, Bircher N: High frequency jet ventilation versus IPPV for CPR in dogs. *Disaster Medicine* 1:216-217, 1983; *Prehospital and Disaster Medicine* 1 (Suppl 1):216-217, 1985
10. Bircher N, Safar P: Cerebral preservation during cardiopulmonary resuscitation. *Crit Care Med* 13:185-190, 1985
11. Bircher N, Safar P: New versus old external cardiopulmonary resuscitation (CPR). *Prehospital and Disaster Medicine* 1:245-248, 1985
12. Alifimoff JK, Stajduhar K, Safar P, Bircher N, Steinburg R, Sotosky M, McNulty P, Stezoski W: Rationale for open-chest cardiopulmonary resuscitation. *Prehospital and Disaster Medicine* 1:242-244, 1985
13. Bircher NG, Safar P: Intracranial pressure and other variables during simultaneous ventilation-compression cardiopulmonary resuscitation. in Miller JD, Teasdale GM, Rowan JO, Galbraith SL, Mendelow AD (eds): *Intracranial Pressure VI*. New York: Springer-Verlag, 1986, pp. 747-749
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111. Ebmeyer U, Safar P, C Sharma, Tanigawa K, Wang Y, Capone A, Xiao F, Bircher N, Stezoski W, Alexander H: Effective combination treatments for cerebral resuscitation from cardiac arrest in adolescent dogs. Exploratory studies. (Presented: International Conference of Pediatric Resuscitation, American Heart Association, Washington, D.C., June, 1994)

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1995)

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124. Rubertsson S, Bircher NG, Alexander H: Intra-aortic balloon occlusion improves survival after cardiopulmonary resuscitation in dogs. Proc Annual Meeting, American Society of Critical Care Anesthesiologists (Presented: Annual Meeting of the American Society of Critical Care Anesthesiologists, Atlanta, GA, October, 1995)

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D. Other Publications

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55. Bircher NG: Cardiovascular Drugs. Anesthesiology Oral Board review. *CMEinfo.com* (Videotaped lecture), 6/20/03
56. Perspectives on Shared Governance," Plenary Speaker, Fall Plenary Session, University Senate, University of Pittsburgh, Pittsburgh, PA, 11/06/03
57. "Health Care Quality Measurement for the Consumer," Presenter, Consumer Satisfaction with UPMC, Spring Plenary Session, University Senate, University of Pittsburgh, Pittsburgh, PA, 3/23/05
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61. Starr LM, Braslow A, Bircher N: Prevention of patient harm. (Letter to the Editor) *JAMA*. 308: 2458-2459, 2012
62. Bircher NG: Senate Matters: On shared governance. *University Times* 47(4) October 9, 2014, p.2 (<http://www.utimes.pitt.edu/?p=32539>)
63. Ray EC, Abdel-Kader K, Bircher N, Rondon-Barrios H: Case report: proximal tubule impairment following volatile anesthetic exposure. *Physiol Rep* 3(9):1-5, 2015, pii: 12560
64. Weinberg S, Wilson F, Frieze I, Spring M, Gaddy B, Bonneau C, Constantino R, Bircher N: University Senate Matters: Why Academic Freedom? Why Now? *University Times* 48(13), March 3, 2016, p.2 (<http://www.utimes.pitt.edu/?p=38244>)
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PROFESSIONAL ACTIVITIES

TEACHING:

Certification:

Basic Life Support-Cardiopulmonary Resuscitation Instructor, American Heart Association, American National Red Cross
Basic Life Support-Cardiopulmonary Resuscitation Instructor-Trainer, American Heart Association
Basic Life Support-Cardiopulmonary Resuscitation Affiliate Faculty, American Heart Association
Standard First Aid Instructor - American National Red Cross
Advanced First Aid and Emergency Care Instructor - American National Red Cross
Advanced Cardiac Life Support Instructor - American Heart Association
Advanced Cardiac Life Support Affiliate Faculty - American Heart Association
Advanced Trauma Life Support Instructor - American College of Surgeons
Pediatric Life Support Instructor, American Heart Association, American Academy of Pediatrics

Courses and tutorials taught

Heart Saver

Cambridge Chapter, American Heart Association, Cambridge, MA
Western Pennsylvania Heart Association, Pittsburgh, PA
Covenant Fellowship Church, Pittsburgh, PA

Basic Life Support-Cardiopulmonary Resuscitation Provider

Adult Education Center, Cambridge, MA
Cambridge Chapter, American National Red Cross, Cambridge, MA
Harvard University, Cambridge, MA
Radcliffe College, Cambridge, MA
Leslie College, Cambridge, MA
Sargeant College of Allied Health Professions, Boston University, Boston, MA
Camp Mayhew, Bristol, NH
Department of Anesthesiology, Western Pennsylvania Hospital, Pittsburgh, PA
Western Pennsylvania Heart Association, Pittsburgh, PA
Children's Hospital of Pittsburgh, Pittsburgh, PA
Staff Physician CPR Training Coordinator, 1980. Presbyterian-University Hospital (Staff Physician CPR Training)
Pittsburgh, PA

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 Covenant Fellowship Church, Pittsburgh, PA
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 Allegheny County Community College, Pittsburgh, PA
 Naval Health Sciences Education and Training Command, Bethesda, MD

Emergency Medical Technician-Paramedic
 Center for Emergency Medicine of Western Pennsylvania, Pittsburgh, PA

Advanced Cardiac Life Support Provider
 Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh (Coordinator of Resident ACLS Training),
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 Washington Hospital Center, Washington, D.C.
 District of Columbia General Hospital, Washington, D.C.
 Walter Reed Army Medical Center, Washington, D.C.
 Georgetown University School of Medicine, Washington, D.C.
 Sibley Memorial Hospital, Washington, D.C.
 Readiness Command Six, United States Naval Reserve, Washington, D.C.

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 Western Pennsylvania Heart Association, Pittsburgh, PA
 Center for Emergency Medicine of Western Pennsylvania, Pittsburgh, PA
 Washington/Metro ACLS Project, Washington, D.C.
 Naval Hospital, Bethesda, MD

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 Uniformed Services University of the Health Sciences, Bethesda, MD
 Academy of Health Sciences, Fort Sam Houston, San Antonio, TX
 Trauma Center, Presbyterian-University Hospital, Pittsburgh, PA

Advanced Trauma Life Support Instructor
 Uniformed Services University of the Health Sciences, Bethesda, MD
 Trauma Center, Presbyterian-University Hospital, Pittsburgh, PA

Open Chest Cardiopulmonary Resuscitation Laboratory
 Division of Critical Care Medicine, Department of Anesthesiology, University
 of Pittsburgh, Pittsburgh PA
 Affiliated Residency in Emergency Medicine, Center for Emergency Medicine of Western Pennsylvania, Pittsburgh, PA
 Cardiopulmonary-Cerebral Resuscitation (CPCR) Course for Instructors and Organizers, Second World Congress on

Emergency and Disaster Medicine, World Federation of Societies of Anesthesiologists, Pittsburgh, PA
Combat Casualty Care Course, Academy of Health Sciences, Fort Sam Houston, (ATLS Instructor and Medical Corps Tactical Officer), San Antonio, TX
Emergency Medical Care at Sea, Georgetown University School of Medicine, for the Owner, Captain and Crew of the Diabliesse (US 11), Washington, D.C.
Pediatric Advanced Life Support Provider
Georgetown University School of Medicine, Washington, D.C.
Pediatric Advanced Life Support Instructor
Georgetown University School of Medicine, Washington, D.C.
Introduction to Resuscitation Medicine
Department of Anesthesiology/Critical Care Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA
Introduction to Operative Surgery (Dog Laboratory Course), Departments of Surgery and Anesthesiology/Critical Care Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA

Other lectures and seminars: (representative examples)

1. "Hypothermia and the Elderly: Prevention and Treatment," Washington/Greensburg Community Action Program, Greensburg, PA, 12/81
2. "Infant and Neonatal Resuscitation," Department of Anesthesiology/Critical Care Medicine, Children's Hospital of Pittsburgh, Pittsburgh, PA, 1/82
3. "Pulmonary Arterial Catheterization," Department of Anesthesiology, Magee-Womens Hospital, Pittsburgh, PA 7/82
4. "Cardiac Disease in Obstetrics," Department of Anesthesiology, Magee-Womens Hospital, Pittsburgh, PA 9/82
5. "Open Chest CPR: Animal Laboratory for Critical Care Fellows," Division of Critical Care Medicine, Department of Anesthesiology, University Health Center of Pittsburgh, 01/21/83, 01/25/83, 8/5/83, 8/22/83, 11/2/83
6. "Spontaneous Rupture of the Tympanic Membrane under Anesthesia," Department of Anesthesiology, Oakland Veterans' Administration Hospital, Pittsburgh, PA, 1/21/83
7. "High Frequency Jet Ventilation," Department of Anesthesiology, Oakland Veterans' Administration Hospital, Pittsburgh, PA, 3/16/83
8. "Review of Resuscitation," Department of Anesthesiology, Oakland Veterans' Administration Hospital, Pittsburgh, PA, 3/23/83
9. "Preoperative Pulmonary Function Testing," Department of Anesthesiology, Montefiore Hospital, Pittsburgh, PA, 5/3/83
10. "Transcutaneous Electrical Nerve Stimulation," (demonstration), Department of Anesthesiology, Montefiore Hospital, Pittsburgh, PA, 5/18/83
11. "Systematic Approach to the Difficult Airway," Emergency Medicine Grand Rounds, Center for Emergency Medicine of Western Pennsylvania, Pittsburgh, PA, 6/30/83
12. "CPR Update," Department of Anesthesiology, Eye and Ear Hospital of Pittsburgh, Pittsburgh, PA, 10/83
13. "Cardiovascular Hemodynamics," Lecture for Third Year Medical Students, Department of Anesthesiology/Critical Care Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA, 4/2/84
14. "Shock and Hemodynamic Monitoring," Lecture For Third Year Medical Students, Department of Anesthesiology/Critical Care Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA, 5/14/84

15. "Orthopedic Trauma," Navy and Marine Corps Reserve Center, Pittsburgh, PA, 5/19/84
16. "Introduction to Advanced Cardiac Life Support," General Surgery Clinic, Naval Hospital, Bethesda, MD, 8/10/84
17. "Airway Adjuncts in the Emergency Room," Emergency Medicine Department, Naval Hospital, Bethesda, MD, 9/10/84
18. "Airway Adjuncts and the Esophageal Obturator Airway," Emergency Medical Technician Course, Naval Health Sciences Education and Training Command, Bethesda, MD, 10/11/84
19. "Introduction to Anesthesia for OR Personnel," Georgetown School of Science and Arts, Washington, D.C., 11/14/84
20. "Respiratory Care," Residents' Conference, Department of Anesthesia, Naval Hospital, Bethesda, MD, 12/18/84
21. "Pacemakers: Part 1," Residents' Conference, Department of Anesthesia, Naval Hospital, Bethesda, MD, 1/29/85
22. "Pacemakers: Part 2," Residents' Conference, Department of Anesthesia, Naval Hospital, Bethesda, MD, 2/4/85
23. "Workshop on Careers in Military Anesthesia," Association of Military Surgeons of the United States, Uniformed Services University of the Health Sciences, Bethesda, MD, 4/20/85
24. "Anesthetic Action on Cerebral Blood Flow, Metabolism and Function," Department of Anesthesia, Naval Hospital, Bethesda, MD, 5/9/85
25. "Anesthesiology and the Law," Medical Indoctrination Course for Lawyers, Naval Medical Command, National Capital Region, Bethesda, MD, 7/2/85
26. "Advanced Cardiac Life Support in the PARR," Recovery Room, Naval Hospital, Bethesda, MD, 7/29/85
27. "Orientation to Anesthesia Record-keeping," Anesthesia Department, Naval Hospital, Bethesda, MD, 7/29/85
28. "Pediatrics in the PARR," Recovery Room, Naval Hospital, Bethesda, MD, 8/5/85
29. "Thoracic Trauma," Combat Casualty Care Course, Academy of Health Sciences, United States Army, Fort Sam Houston, San Antonio, TX, 8/16/85
30. "Postoperative Hypoxemia," Division of Critical Care Medicine, Department of Internal Medicine, Naval Hospital, Bethesda, MD, 9/18/85
31. "Pediatric Advanced Cardiac Life Support," Recovery Room, Naval Hospital, Bethesda, MD, 11/12/85
32. "Inhalation Anesthetic Agents," Maryland-District of Columbia Association of Recovery Room Nurses, Naval Hospital, Bethesda, MD, 11/19/85
33. "Spinal Anesthetics," Recovery Room Inservice, Naval Hospital, Bethesda, MD, 12/2/85
34. "Primary Assessment," Critical Care Update on Trauma, Department of Staff Education and Training, Naval Hospital, Bethesda, MD, 12/12/85
35. "Airway Management/Endotracheal Intubation Workshop," (Course Director), Flight Nursing Program, MEDSTAR Trauma Unit, Washington Hospital Center, Washington, DC, 1/11/86
36. "General Anesthetics," Recovery Room Orientation Course, Naval Hospital, Bethesda, MD, 1/20/86
37. "Regional Anesthetics," Recovery Room Orientation Course, Naval Hospital, Bethesda, MD, 1/20/86

38. "Resuscitation Drugs," Recovery Room Orientation Course, Naval Hospital, Bethesda, MD, 1/22/86
39. "Airway Adjuncts and the Esophageal Obturator Airway," Emergency Medical Technician Course, Naval School of Health Sciences, Bethesda, MD, 1/28/86
40. "Cerebral Pharmacology of Anesthetics," Residents' Conference, Department of Anesthesia, Naval Hospital, Bethesda, MD, 2/4/86
41. "Cardiovascular Pharmacology I & II," Walter Reed Army Medical Center, Washington, DC, 4/6/86
42. "Pediatric Airway Management," Recovery Room Inservice, Naval Hospital, Bethesda, MD, 5/5/86
43. "Airway Adjuncts and the Esophageal Obturator Airway," Emergency Medical Technician Course, Naval School of Health Sciences, Bethesda, MD, 6/6/86
44. "The Pain Clinic," Recovery Room Inservice, Naval Hospital, Bethesda, MD, 6/16/86
45. "Acute Myocardial Infarction," ACLS Course for Incoming Interns, Naval Hospital, Bethesda, MD, 6/28-30/86
46. "Stabilization and Transport," Combat Casualty Care Course, Academy of Health Sciences, Fort Sam Houston, San Antonio, TX, 9/7/86
47. "Care of the ICU Patient after a General Anesthetic," Intensive Care Unit Inservice, Naval Hospital, Bethesda, MD, 9/29/86
48. "Mass Casualty Management," Surgical Team Four, Naval Hospital, Bethesda, MD, 11/19/86
49. "MAST Trousers: Indications and Pitfalls," Medical Department, USS SAIPAN (LHA-2), 12/13/86
50. "Evaluation of Chest Pain," Medical Department, USS SAIPAN (LHA-2), 1/23/87
51. "Local and Regional Anesthetics," Medical Department, USS SAIPAN (LHA-2), 1/23/87
52. "Noncombatant Evacuation Operations: Casualty Estimates and Medical Planning," Medical Department, USS SAIPAN (LHA-2), 2/4/87
53. "Potent Vasoactive Infusions," Intensive Care Unit Inservice, Department of Critical Care Medicine, Naval Hospital, Bethesda, MD, 6/1/87
54. "Aspiration Pneumonitis," Recovery Room Inservice, Naval Hospital, Bethesda, MD, 6/8/87
55. "Gastrointestinal Disorders in the Critically Ill Patient," TeleSession discussant, TeleSession Corporation, 6/17/87
56. "Spine and Spinal Cord Trauma," Combat Casualty Care Course, Academy of Health Sciences, United States Army, Fort Sam Houston, San Antonio, TX, 8/8/87
57. "Post Lumbar Puncture Cephalgia," Grand Rounds, Neurology Department, Naval Hospital, Bethesda, MD, 8/21/87
58. "Sympathetic Blockade in the Treatment of Reflex Sympathetic Dystrophy and Causalgia," Grand Rounds, Neurology Department, Naval Hospital, Bethesda, MD, 8/21/87
59. "New Options for Perioperative Control of Blood Pressure," TeleSession discussant, TeleSession Corporation, 8/24/87
60. "ABC's of Congenital Defects," Recovery Room Inservice, Naval Hospital, Bethesda, MD, 9/28/87

61. "Initial Assessment," Emergency Medical Care at Sea, Georgetown University School of Medicine, Washington, DC, 9/29/87
62. "Wound Management," Emergency Medical Care at Sea, Georgetown University School of Medicine, Washington, DC, 10/1/87
63. "Cardiovascular Pharmacology," Sibley Memorial Hospital, Washington, DC, 3/27/88
64. "Cardiovascular Pharmacology and Acid-Base Balance," Suburban Hospital, Bethesda, MD, 4/30/88
65. "Perioperative Myocardial Ischemia and Infarction," Division of Critical Care Medicine, Department of Medicine, Naval Hospital, Bethesda, MD, 5/20/88
66. "Introduction to Resuscitation Medicine," Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 2/10/89, 5/26/89, 10/13/89, 12/8/89, 2/9/90, 4/6/90, 6/8/90, 8/2/90, 10/12/90, 12/7/90, 2/8/91, 4/5/91, 6/7/91, 8/1/91, 11/11/91, 1/02/92, 01/27/92, 3/23/92, 5/11/92, 10/5/92, 2/1/93, 5/17/93, 3/28/94, 3/28/94, 5/16/94
67. "Airway Management in Trauma," Division of Critical Care Medicine, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 3/10/89
68. "Autonomic Pharmacology," Department of Anesthesiology, Montefiore Hospital, Pittsburgh, PA, 7/17/89
69. "Differential Diagnosis of Postoperative Hypoxemia," Department of Anesthesiology, Montefiore Hospital, Pittsburgh, PA, 8/8/89
70. "Adult Respiratory Distress Syndrome (ARDS)," Division of Critical Care Medicine, Department of Surgery, Montefiore Hospital, Pittsburgh, PA, 8/11/89
71. "Cardiogenic Shock," Division of Critical Care Medicine, Department of Surgery, Montefiore Hospital, Pittsburgh, PA, 8/16/89
72. "Septic and Hemorrhagic Shock," Division of Critical Care Medicine, Department of Surgery, Montefiore Hospital, Pittsburgh, PA, 8/18/89
73. "Resuscitation in the Post-Anesthesia Care Unit," Post-Anesthesia Care Unit Inservice, Montefiore Hospital, Pittsburgh, PA 10/12/89
74. "Canine Anesthesia: Lecture and Demonstration," Department of Surgery, University of Pittsburgh, Pittsburgh, PA, 10/24/89
75. "Shock Syndromes, Part I," Division of Critical Care Medicine, Department of Surgery, Montefiore Hospital, Pittsburgh, PA, 11/16/89; 7/10/90; 9/12/90; 11/13/90; 1/9/91; 3/6/91; 6/12/91; 7/9/91; 9/9/91; 11/12/91; 1/16/92; 3/23/92; 5/6/92; 7/6/92; 9/1/92; 11/23/92; 1/13/93; 3/22/93; 5/10/93
76. "Shock Syndromes, Part II," Division of Critical Care Medicine, Department of Surgery, Montefiore Hospital, Pittsburgh, PA, 12/8/89; 7/11/90; 9/13/90; 1/10/91; 3/7/91; 6/13/91; 7/10/91; 9/10/91; 11/13/91; 1/17/92; 3/24/92; 5/8/92; 7/8/92; 9/3/92; 11/24/92; 1/14/93; 3/23/93; 5/11/93
77. "Adult Respiratory Distress Syndrome (ARDS), Part I," Division of Critical Care Medicine, Department of Surgery, Montefiore Hospital, Pittsburgh, PA, 12/7/89; 7/12/90; 9/10/90; 1/7/91; 4/8/91; 6/10/91; 8/5/91; 10/7/91; 4/7/92; 6/23/92; 8/5/92; 10/6/92; 12/7/92; 2/2/93; 4/5/93
78. "Adult Respiratory Distress Syndrome (ARDS), Part II," Division of Critical Care Medicine, Department of Surgery, Montefiore Hospital, Pittsburgh, PA, 12/8/89; 7/13/90; 9/11/90; 1/8/91; 4/10/91; 6/11/91; 8/6/91; 10/8/91; 4/8/92; 6/24/92; 8/6/92; 10/7/92; 12/8/92; 2/3/93; 4/6/93
79. "Neuromuscular Blocking Agents for Endotracheal Intubation - Are They Safe?- Are These the Best Agents?," Emergency

Medicine Journal Club, Center for Emergency Medicine of Western Pennsylvania, Pittsburgh, PA, 2/20/90

80. "Mediastinitis: Anesthetic and Critical Care Implications," Anesthesiology/Critical Care Medicine Mortality and Morbidity Conference, Montefiore Hospital, Pittsburgh, PA, 3/27/90
81. "Perioperative Consultation: A Consumer's Perspective," Pulmonary Grand Rounds, Division of Pulmonary and Critical Care Medicine, Department of Medicine, University of Pittsburgh, Pittsburgh, PA, 4/4/90
82. "Delirium Tremens: Critical Care Implications," Anesthesiology/Critical Care Medicine Mortality and Morbidity Conference, Montefiore Hospital, Pittsburgh, PA, 5/8/90
83. "Upper Airway Management," University Trauma Center, Presbyterian-University Hospital, University of Pittsburgh, Pittsburgh, PA, 7/12/90
84. "Perioperative Cardiopulmonary Resuscitation," Residency Training Program, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 7/31/90
85. "Spine and Spinal Cord Trauma," University Trauma Center, Presbyterian-University Hospital, University of Pittsburgh, Pittsburgh, PA, 8/25/90
86. "Head Trauma," University Trauma Center, Presbyterian-University Hospital, University of Pittsburgh, Pittsburgh, PA, 9/28/90
87. "Preoperative Anesthetic Evaluation," Department of Oral and Maxillofacial Surgery, Montefiore University Hospital, Pittsburgh, PA, 1/22/91
88. "PACU Emergencies - How They Differ," Annual National Meeting, American Society of Post Anesthesia Nurses, Cincinnati, OH, 4/16/91
89. "Adult Respiratory Distress Syndrome," Division of Critical Care Medicine, Department of Anesthesiology, Montefiore University Hospital, Pittsburgh, PA, 6/19/91; 11/11/91; 5/12/93; 7/26/93; 10/19/93; 11/22/93; 2/21/94; 3/22/94; 5/9/94; 6/15/94; 9/13/94; 11/22/94; 12/19/94; 01/23/95; 3/6/95; 4/28/95; 5/24/95; 7/24/95; 8/8/95; 9/18/95; 10/16/95; 11/6/95; 1/8/96; 2/12/96; 3/6/96; 4/1/96; 5/9/96; 6/25/96; 8/1/96
90. "Airway Management in Trauma," Navy and Marine Corps Reserve Center, Pittsburgh, PA, 6/23/91
91. "Brain Resuscitation," Staff Development Department, Montefiore University Hospital, Pittsburgh, PA, 6/27/91
92. "Cardiac Arrest in the PACU," PACU Inservice, Montefiore University Hospital, Pittsburgh, PA, 8/28/91
93. "Perioperative Pulmonary Consultation: Why Bother?," Anesthesiology Grand Rounds, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 9/5/91
94. "Perioperative Pulmonary Complications," CRNA Inservice, Department of Anesthesiology, Montefiore University Hospital, Pittsburgh, PA, 11/6/91
95. "Capnography in Neurologically Ill Patients," Second International Course of Neurologic Intensive Care: Present and Future of Neurologic Intensive Care, Mexico City, Mexico, 11/25/91
96. "Controversies in the Treatment of Intracranial Hypertension," Second International Course of Neurologic Intensive Care: Present and Future of Neurologic Intensive Care, Mexico City, Mexico, 11/25/91
97. "Extracranial Complications of Head Trauma," Second International Course of Neurologic Intensive Care: Present and Future of Neurologic Intensive Care, Mexico City, Mexico, 11/26/91

98. "Aspiration/ARDS," Resident Anesthesia Lecture Series, Department of Anesthesiology, Montefiore University Hospital, Pittsburgh, PA, 3/4/92; 3/10/93; 01/26/94; 12/14/94; 01/24/96; 10/16/96
99. "ACLS Update," Quality Improvement Inservice, Department of Anesthesiology, Montefiore University Hospital, Pittsburgh, PA, 3/18/92
100. "Advanced Cardiac Life Support Update," Critical Care Grand Rounds, Division of Critical Care Medicine, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 3/18/92
101. "Anesthesia for Bone Marrow Transplantation," CRNA Inservice, Department of Anesthesiology, Montefiore University Hospital, Pittsburgh, PA, 7/1/92
102. "Anesthesiology Written Board Review: Critical Care Medicine," Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 7/3/92
103. "Spine and Spinal Cord Trauma," University Trauma Center, Presbyterian-University Hospital, University of Pittsburgh, Pittsburgh, PA, 8/14/92
104. "Invasive Monitoring: Why and How," 19th Annual Symposium for Nurse Anesthetists: Perspectives in Anesthesia:1992, University of Pittsburgh School of Anesthesia For Nurses, Pittsburgh, PA, 9/26/92
105. "What, How and Why of Hemodynamic Monitoring in Neurologic Intensive Care," Third International Course of Neurologic Intensive Care: "Dr. Jose Manuel Velasco Siles," Hospital Juarez de Mexico, Mexico City, Mexico, 11/9/92
106. "Inotropes: Use and Abuse," First International Course of Intensive Care, Hospital San Jose de Zamora, Zamora, Mexico, 11/13/92
107. "Blood Gas Monitoring in Critical Care Medicine," First International Course of Intensive Care, Hospital San Jose de Zamora, Zamora, Mexico, 11/14/92
108. "Intra-abdominal Tumor Resection," Anesthesiology/Critical Care Medicine Mortality and Morbidity Conference, Montefiore University Hospital, Pittsburgh, PA, 11/24/92
109. "Ethics Conference: Defining Medical Futility," Division of Critical Care Medicine, Department of Anesthesiology, Montefiore University Hospital, Pittsburgh, PA, 4/13/93
110. "Cardiac Arrest in the PACU," PACU Inservice, Montefiore University Hospital, Pittsburgh, PA, 4/28/93.
111. "Difficult Airway Management," CRNA Inservice, Department of Anesthesiology, Montefiore University Hospital, Pittsburgh, PA, 6/2/93
112. "Taking Call and Managing Medical Emergencies," Psychiatry Resident Orientation, Western Psychiatric Institute and Clinic, Pittsburgh, PA, 7/1/93
113. "Functional Team Training Overview," Department of Anesthesia Functional Team Training, Surgical Directorate, NR Fleet Hospital 250 CBTZ 7, Pittsburgh, PA, 7/17/93
114. "Post-Traumatic Adult Respiratory Distress Syndrome," Department of Anesthesia Functional Team Training, Surgical Directorate, NR Fleet Hospital 250 CBTZ 7, Pittsburgh, PA, 7/17/93
115. "PACU Mock Codes," PACU Inservice, Montefiore University Hospital, Pittsburgh, PA, 7/28/93
116. "Colloids vs. Crystalloids in Fluid Resuscitation," First International Seminar on Trauma Intensive Care and Fourth International Course of Neurologic Intensive Care "Jose Manuel Velasco Silez," Hospital Magdalena de las Salinas, Mexico City, Mexico, 9/3/93

117. "Sedation and Analgesia in the ICU," First International Seminar on Trauma Intensive Care and Fourth International Course of Neurologic Intensive Care "Jose Manuel Velasco Silez," Hospital Magdalena de las Salinas, Mexico City, Mexico, 9/3/93
118. "Myths and Realities of Transplantation," First International Seminar on Trauma Intensive Care and Fourth International Course of Neurologic Intensive Care "Jose Manuel Velasco Silez," Hospital Magdalena de las Salinas, Mexico City, Mexico, 9/3/93
119. "Mechanical Ventilation after Thoracic Trauma," First International Seminar on Trauma Intensive Care and Fourth International Course of Neurologic Intensive Care "Jose Manuel Velasco Silez," Hospital Magdalena de las Salinas, Mexico City, Mexico, 9/4/93
120. "Thoracic Trauma," Department of Anesthesiology, Rush Presbyterian St. Luke's Medical Center, Rush Medical College, Chicago, IL, 10/6/93.
121. "The Golden Hour," Plenary Lecture, 6th General Scientific Meeting, Academy of Medicine, Singapore, 1/15/94
122. "Mass Casualties," Symposium on Specific Aspects of Multiple Trauma, 6th General Scientific Meeting, Academy of Medicine, Singapore, 1/16/94
123. "What An Internist Should Know About Anesthetic Agents," Medical Grand Rounds, Department of Internal Medicine, Conemaugh Memorial Hospital, Johnstown, PA, 3/16/94
124. "Approach to the Patient with Hypoxemia," Medical Grand Rounds, Department of Internal Medicine, Conemaugh Memorial Hospital, Johnstown, PA, 5/18/94
125. "Continuous Perioperative Monitoring of Oxygen Transport, Ventilation, and Hemodynamics for Trauma," Trauma Anesthesia Update 1994, Captiva Island, FL, 9/9/94
126. "Stress Ulcer Prophylaxis in Septic Shock Patients," Symposium on Stress Lesions of the Gastric Mucosa, Fifth National Congress of the National Association of Specialists and Residents in Critical Care Medicine, Acapulco, Mexico, 9/22/94
127. "Management of the Sedated Patient in the Intensive Care Unit," Symposium on Sedation and Relaxation in the Intensive Care Unit, Fifth National Congress of the National Association of Specialists and Residents in Critical Care Medicine, Acapulco, Mexico, 9/23/94
128. "Preoperative Evaluation and Preparation of the Surgical Patient," Lawrence County Medical Society, Lawrence County, PA, 10/4/94
129. "Preoperative Evaluation," SRNA Physical Diagnosis Course, Nurse Anesthesia Program, School of Nursing, University of Pittsburgh, Pittsburgh, PA, 11/29/94
130. "Perioperative ICU: An Overview," Green County Memorial Hospital, Waynesburg, PA, 5/23/95
131. "Use of Blood Products in Shock," Sixth International Course on Intensive Care "Jose Manuel Velasco Silez," Hospital Magdalena de las Salinas, Mexico City, Mexico, 8/30/95
132. "Ideal Fluid Resuscitation in Polytrauma Patients," Sixth International Course on Intensive Care "Jose Manuel Velasco Silez," Hospital Magdalena de las Salinas, Mexico City, Mexico, 8/30/95
133. "Sedation in Septic Patients," Sixth International Course on Intensive Care "Jose Manuel Velasco Silez," Hospital Magdalena de las Salinas, Mexico City, Mexico, 8/31/95
134. "Mechanical Ventilation in Septic Patients," Sixth International Course of Intensive Care "Jose Manuel Velasco Silez," Hospital Magdalena de las Salinas, Mexico City, Mexico, 9/1/95

135. "Sepsis and Diabetes Mellitus," Sixth International Course on Intensive Care "Jose Manuel Velasco Silez," Hospital Magdalena de las Salinas, Mexico City, Mexico, 9/1/95
136. "ICU Analgesia and Sedation," Division of Critical Care Medicine, Department of Anesthesiology, Montefiore University Hospital, Pittsburgh, PA, 01/02/96; 2/13/96; 3/11/96; 4/4/96;
137. "Hemodynamic Monitoring in the ICU," Division of Critical Care Medicine, Department of Anesthesiology, Montefiore University Hospital, Pittsburgh, PA, 1/3/96; 2/14/96; 3/12/96
138. "CPCR and ICU Management," Division of Critical Care Medicine, Department of Anesthesiology, Montefiore University Hospital, Pittsburgh, PA, 1/4/96; 2/15/96; 3/7/96; 4/11/96; 5/23/96; 8/14/96; 11/11/96; 12/23/96; 2/12/97;
139. "Airway Management in Severe Head Injury," Provincial Satellite Symposium, Seventh International Course on Intensive Care "Jose Manuel Velasco Silez," Monterrey, Mexico, 8/24/96
140. "Reducing Stress in the ICU: Sedation and Analgesia," Provincial Satellite Symposium, Seventh International Course on Intensive Care "Jose Manuel Velasco Silez," Pachuca, Mexico, 8/26/96
141. "Perioperative Management of Liver Transplantation," Seventh International Course on Intensive Care "Jose Manuel Velasco Silez," Hospital Magdalena de las Salinas, Mexico City, Mexico, 8/28/96
142. "Perioperative Management of Heart-Lung Transplantation," Seventh International Course on Intensive Care "Jose Manuel Velasco Silez," Hospital Magdalena de las Salinas, Mexico City, Mexico, 8/29/96
143. "Anesthesia for Severe Multiple Trauma," Pan American Congress on Emergency Medicine and Disasters, College of Physicians and Surgeon of Costa Rica and World Association for Emergency and Disaster Medicine, San Jose, 3/2/98
144. "Infectious Disease/Sepsis," Resident Anesthesia Lecture Series, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 4/1/98
145. "Perioperative ACLS," Anesthesiology Grand Rounds, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 3/9/00
146. "Sedation and Monitoring," Fellow's Orientation Lecture Series, Division of Gastroenterology, Hepatology, and Nutrition, Department of Internal Medicine, University of Pittsburgh, Pittsburgh, PA, 7/9/02
147. "Preoperative Evaluation and the Differential Diagnosis of Hypotension," SRNA Physical Diagnosis Course, Nurse Anesthesia Program, School of Nursing, University of Pittsburgh, Pittsburgh, PA, 7/18/02
148. "Physical Chemistry in Anesthesia," Nurse Anesthesia Program, School of Nursing, University of Pittsburgh, Pittsburgh, PA, 9/12/02
149. "Electrolyte Management in Anesthesia," NURSAN 2701: Chemistry and Physics of Anesthesia, Nurse Anesthesia Program, School of Nursing, University of Pittsburgh, Pittsburgh, PA, 11/14/02 (given twice yearly)
150. "Biochemistry in Anesthesia," NURSAN 2701: Chemistry and Physics of Anesthesia, Nurse Anesthesia Program, School of Nursing, University of Pittsburgh, Pittsburgh, PA, 12/5/02 (given twice yearly)
151. "University Health Benefits: How will Pitt Meet the Challenge," Panelist, Plenary Session, University Senate, University of Pittsburgh, Pittsburgh, PA, 3/19/03
152. "Neuroanesthesia Case Studies," NURSAN 2750: Advanced Principles of Anesthesia III, Nurse Anesthesia Program, School of Nursing, University of Pittsburgh, Pittsburgh, PA, 4/3/03, (given yearly)

153. "Oral Board Review: ICU" Resident Anesthesia Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 5/14/03
154. "Oral Board Review: Cardiovascular Drugs (CMEInfo)," Resident Anesthesia Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 6/20/03
155. "Differential Diagnosis of Hypotension," Nurse Anesthesia Program, School of Nursing, University of Pittsburgh, Pittsburgh, PA, 7/17/03, (given yearly)
156. "Fatigue and Sleep Awareness, Part I," CA-2 Anesthesia Resident Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 10/27/03, 10/11/04
157. "ARDS/Aspiration," CA-2 Anesthesia Resident Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 6/6/05, 6/5/06, 6/4/07
158. "Perspectives on Shared Governance," Plenary Speaker, Fall Plenary Session, University Senate, University of Pittsburgh, Pittsburgh, PA, 11/06/03
159. "Fatigue and Sleep Awareness, Part II," CA-3 Anesthesia Resident Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 11/18/03, 10/12/04
160. "Risk Assessment and Outcome in Anesthesia 2004," 2004 Summer Anesthesia Seminar, Nurse Anesthesia Program, School of Nursing, University of Pittsburgh, Pittsburgh, PA, 6/5/04
161. "Health Care Quality Measurement for the Consumer," Presenter, Consumer Satisfaction with UPMC Spring Plenary Session, University Senate, University of Pittsburgh, Pittsburgh, PA, 3/23/05
162. "Fatigue," CA-3 Anesthesia Resident Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 10/18/05, 10/10/06, 9/25/07, 10/1/08, 10/7/09, 11/3/10, 2/22/12, 2/20/13
163. "Oral Board Review: Hemodynamics" CA-3 Resident Anesthesia Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 1/10/06, 2/13/07
164. "Neuroanesthesia and Neurological Critical Care 2006" Anesthesiology Grand Rounds, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 2/23/06
165. "Oral Board Review: Vascular Anesthesia" Resident Anesthesia Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 2/28/06
166. "Fatigue," CA-1 Anesthesia Resident Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 9/27/06, 7/25/13
167. "Traumatic Brain Injury," Neuroanesthesiology Specialty meeting, Presbyterian University Hospital, Pittsburgh, PA, 11/22/06, 10/24/07
168. "Acute Neurologic Critical Care (PBLD)," Anesthetic and Perioperative Complications: Management & Treatment. Cancun, Mexico, 2/17/07
169. "Practice Based Learning-Quality Improvement," CA-1 Anesthesia Resident Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 4/11/07
170. "Keyword Review- Neuroanesthesia," CA-3 Anesthesia Resident Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 11/27/07, 12/3/08, 12/16/09, 12/15/10, 1/4/12, 12/19/12, 1/8/14, 1/7/15, 12/16/15, 12/7/16 (given yearly)

171. "Oral Board Review: ICU Ventilator Management," CA-3 Resident Anesthesia Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 4/2/08, 4/15/08, 5/5/10, 5/4/11
172. "Aspiration, Sepsis, ARDS," CA-2 Anesthesia Resident Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 5/20/08, 5/26/09, 5/25/10, 5/24/11, 5/22/12, 5/14/13, 5/27/14, 5/26/15, 5/24/16 (given yearly)
173. "Approach to Chest X-Ray Interpretation: A Primer," Nurse Anesthesia Program, School of Nursing, University of Pittsburgh, Pittsburgh, PA, 9/16/08, 9/22/09, 9/21/10, 9/20/11, 9/18/12, 9/17/13
174. "CXR: What you don't know may kill the patient," Anesthesiology Grand Rounds, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 10/30/08
175. "Perspectives on Informed Consent 2009," Summer Anesthesia Seminar, Nurse Anesthesia Program, School of Nursing, University of Pittsburgh, Pittsburgh, PA, 6/13/09
176. "Sepsis and ARDS 2009," Anesthesiology Grand Rounds, Department of Anesthesiology, West Virginia University, Morgantown, WV, 12/2/09
177. "ICP Management," Mortality and Morbidity Conference, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 12/15/10
178. "ICP Monitoring and Management of Head Trauma," Anesthesiology Grand Rounds, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 1/27/11
179. "To Make the Patient Lie Still," Mortality and Morbidity Conference, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 3/16/11
180. "Effect of Intraoperative High Inspired Oxygen Fraction On Surgical Site Infection, Postoperative Nausea and Vomiting, and Pulmonary Function: Systematic Review and Meta-Analysis of Randomized Controlled Trials," Faculty mentor for Journal Club discussion of Hovaguimian, et al., Anesthesiology 119:303-316, 2013, 4/2/15
181. "Fatigue, Stress and Medical Error" Obstetrical Fellow Lecture Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 5/8/14 (given yearly)
182. "ARDS," Anesthesia Resident Case Management Problem-Based Learning Discussion Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 5/15/14, 5/22/14, 4/30/15, 5/7/15, 5/12/16, 5/19/16, (given twice yearly)
183. "Hyperkalemic Cardiac Arrest," Mortality and Morbidity Conference, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 5/28/14
184. "Garage Project," Ask Your Neighbors: Renovation Stories, Love Your Home Restoration Fair, Highland Park Community Club, Pittsburgh, PA, 2/21/15
185. "Central Line Complications," Mortality and Morbidity Conference, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 7/8/15
186. "Awake Craniotomy," Mortality and Morbidity Conference, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 12/9/15

Theses completed under your direction: None

Service on Masters Degree committees:

Michael C. Young, 1995, Department of Biostatistics, Graduate School of Public Health, University of Pittsburgh, Master of Science in Biometry, Thesis: "Serial Correlation of Heart Rate and Cardiac Output as a Statistical Model of Recovery after Cardiac Resuscitation."

Service on Ph.D./Dr.P.H. committees:

John O'Donnell, MSN, CRNA, Dr.P.H. in Epidemiology, Graduate School of Public Health, University of Pittsburgh, 2009

Sten Rubertsson, M.D., 1994, Faculty Opponent, Doctoral Thesis Defense, Faculty of Medicine, University of Uppsala, Sweden

Lars Wik, M.D., 1995, (Two collaborative studies submitted in partial completion of Ph.D. requirements at the University of Oslo)

Supervision of post-doctoral students, housestaff physicians and fellows:

Medical Students: (International Resuscitation Research Center Medical Students' Research Program): Grace Alfonsi, James K. Alifimoff, William M. Barnett, Eric Brader, Stephen Cain, Leslie Gilbertson, Stephen Gilman, Seung Kwon Lee, Raymond Lesser, Patrick McNulty, Andrew Miller, Robert W. Neumar, Michael Sotosky, Karl Stajduhar, Robert Steinberg, Patrick M. Tibbles, Joyce Z. Werner, Shei-Jei Wu

Winners, Undergraduate Research Prize of the American Heart Association, Pennsylvania Affiliate: Eric Brader (1982), Joyce Werner (1982), Karl Stajduhar (1983), Michael Sotosky (1983).

Post-doctoral students: None

Housestaff physicians:

Anesthesiology/Critical Care Medicine Residents: James K. Alifimoff, M.D., Brian A. Williams, M.D.

Emergency Medicine Residents: Robert W. Neumar, M.D.

NIH T32 Postdoctoral Research Fellows: Danette Jordan, M.D. (2008-2009), Nicole Scouras, M.D., MPH(2009-2010), Charles Lin (2010-2011)

Fellows: Denise Gavula, D.O., Robert W. Hickey, M.D., Sten Rubertsson, M.D., Ph.D., Rade B. Vukmir, M.D., Lars Wik, M.D.

RESEARCH:

<u>Grant Number (Funded)</u>	<u>Grant Title</u>	<u>Role in Project and Percentage of Effort Inclusive</u>	<u>Years and Source</u>
N/A (\$5000)	Old and New CPR for Basic and Advanced Life Support (Cerebral Viability and Cardiac Resuscitability)	Co-Investigator (25%)	1980-1981 Western Pennsylvania Heart Association
N/A (\$8,288)	Cerebral Preservation during CPR	Principal Investigator (20%)	7/82-6/83 Western Pennsylvania Heart Association
N/A (4,975)	Optimizing Simultaneous Ventilation – Compression CPR	Principal Investigator (20%)	3/83-6/84 Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh

N/A (5,000)	Spinal Cord Blood Flow and Local Anesthetics	Co-Investigator (10%)	11/84-6/86	Uniformed Services, University of the Health Sciences Grant and Childrens Hospital of Pittsburgh
N/A (5,000)	Comparison of Endotracheal and Intravenous Administration of Epinephrine in a Pediatric Animal Model of Cardiopulmonary Arrest	Co-Investigator (10%)	11/88-6/89	National Institutes of Health Biomedical Research Support Grant and Childrens Hospital of Pittsburgh Ambulatory Care Center/Emergency Pediatrics
N/A (5,000)	Determining the Optimal Dosage of Epinephrine Administered Endotracheally in an Animal Model of Cardiopulmonary Arrest	Co-Investigator (10%)	11/89-6/90	National Institutes of Health Biomedical Research Support Grant and Childrens Hospital of Pittsburgh Ambulatory Care Center/Emergency Pediatrics
NS 15295 (\$1,137,829)	Clinical Study of Brain Resuscitation, Phase III (BRCT III)	Consultant (5%)	1989-1994	National Institutes of Health
N/A (\$6400)	Effect of Sodium Bicarbonate on Cardiac Resuscitation and Neurological Outcome	Principal Investigator (25%)	1/90-12/90	Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh
N/A (\$24,720)	Effect of Sodium Bicarbonate on Cardiac Resuscitation and Neurological Outcome	Principal Investigator (25%)	7/90-6/91	American Heart Association, South western Division, Pennsylvania Affiliate
N/A (5,000)	Evaluation of pretreatment with ATP-MgCl ₂ in an Animal Model of Asphyxial Arrest	Co-Investigator (10%)	10/90-9/91	National Institutes of Health Biomedical Research Support Grant and Childrens Hospital of Pittsburgh Ambulatory Care Center/Emergency Pediatrics
N/A (\$14,500)	Sodium Bicarbonate in Prehospital Cardiac Arrest	Co-Investigator (10%)	7/93-7/94	Laerdal Foundation for Acute Medicine
N/A (\$18,750)	Effect of Aortic Occlusion on Hemodynamics during CPR, Survival and Neurological Outcome	Co-Investigator (10%)	8/94-6/95	Laerdal Foundation for Acute Medicine
N/A (\$6,250)	Effect of Aortic Occlusion on Hemodynamics during CPR, Survival and Neurological Outcome	Co-Investigator (10%)	7/94-6/95	Swedish Heart-Lung Foundation
N/A (\$5,500)	Sodium Bicarbonate in Prehospital Cardiac Arrest	Co-Investigator (10%)	7/94 -7/95	Laerdal Foundation for Acute Medicine
N/A (\$10,000)	Survival and Neurological Outcome after Aortic Occlusion and Intra-aortic Administration of Epinephrine during Experimental CPR	Co-Investigator (10%)	1/95-12/95	Laerdal Foundation for Acute Medicine

N/A (\$10,000)	Continuous Epinephrine Infusion for Cardiopulmonary Cerebral Resuscitation	Principal Investigator (25%)	1/95-12/95 Laerdal Foundation for Acute Medicine
N/A (\$20,000)	Mechanisms of Intracellular pH Restoration after Glutamate-Induced Cytosolic Acidosis	Principal Investigator (25%)	1/95-12/95 Fanny Pushin Rosenberg Research Fund, University of Pittsburgh Medical Center

B. Seminars and invited lectureships related to your research.

1. "Mechanisms and Augmentation of Cardiopulmonary Resuscitation," Division of Critical Care Medicine, Department of Anesthesiology, University Health Center of Pittsburgh, 7/81
2. "Cardiopulmonary Resuscitation: New Methods, with Emphasis on Brain Viability," Division of Cardiology, Department of Medicine, University Health Center of Pittsburgh, 9/23/81
3. "Instructors, Methods, Teaching Aids, Time Required to Teach and Knowledge and Skill Maintenance for First-Aiders and Instructors in Cardiopulmonary Resuscitation and Obstructed Airway Management," International Symposium on First Aid in Cardiopulmonary Resuscitation, Hypothermia, and Frost Bite; League of Red Cross Societies, Copenhagen, 10/1/81
4. "Resuscitation Training and the Red Cross," Annual Meeting of the Indiana County Chapter, American Red Cross, Indiana, PA, 9/14/82
5. "Cerebral Preservation during CPR: A Preliminary Report," American Heart Association, Pennsylvania Affiliate, Research Reception, Greentree, PA, 9/25/82
6. "Controversies in CPR: Cerebral Resuscitation and Brain Survival," Division of Continuing Medical Education, Boca Raton Community Hospital, Boca Raton, FL, 10/13/82
7. "Cerebral Preservation during CPR," Emergency Medicine Research Seminar, Center for Emergency Medicine of Western Pennsylvania, Pittsburgh, PA, 2/1/83
8. "Pneumatic CPR Potentials," Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 4/22/83
9. "The Mega Code for Advanced Cardiac Life Support (ACLS) Training and Performance Evaluation, " by W. Kaye, A. Sladen, and R. Stewart; presented for authors at the Third World Congress on Emergency and Disaster Medicine, Rome, Italy, 5/26/83
10. "Cardiopulmonary-Cerebral Resuscitation," EMS Round-up '83, Greater Elgin Area Mobile Intensive Care Program, Elgin, IL, 6/16/83
11. "Drugs and Fluids for Restoring Spontaneous Circulation," EMS Round-up '83, Greater Elgin Area Mobile Intensive Care Program, Elgin, IL, 6/16/83
12. "Emergency Artificial Ventilation and Oxygenation," EMS Round-up '83, Greater Elgin Area Mobile Intensive Care Program, Elgin, IL, 6/16/83
13. "New and Controversial Methodologies in Cardiopulmonary- Cerebral Resuscitation," Second Annual National Symposium on Emergency Medical Services, Greenville, SC, 8/20/83
14. "History of Resuscitation," Second Annual National Symposium on Emergency Medical Services, Greenville, SC, 8/20/83
15. "Pharmacology of Resuscitation," Second National Symposium on Emergency Medical Services, Greenville, SC, 8/20/83
16. "Cerebral Protection, Preservation, and Resuscitation: A Continuum," Department of Anesthesiology, Children's Hospital of

Pittsburgh, Pittsburgh, PA, 9/8/83

17. "Cerebral Preservation during CPR- The Final Report," American Heart Association, Pennsylvania Affiliate, Research Reception, Harrisburg, PA, 9/23/83

18. "CPR and Brain Resuscitation," Critical Care Update, American Association of Critical Care Nurses, Three Rivers Chapter, Pittsburgh, PA, 10/14/83

19. "Cerebral Protection during CPR," Division of Critical Care Medicine, Department of Anesthesiology, University Health Center of Pittsburgh, Pittsburgh, PA, 10/18/83

20. "Management of the Cardiac Patient (Basic Life Support and CPR)," FIRST CRITICAL HOUR--Trauma Update III, College of Continuing Education, Illinois State University, Normal, IL, 10/22/83

21. "Advanced Cardiac Care: Intracoronary Streptokinase, Emergency Coronary Artery Bypass, Percutaneous Transluminal Coronary Angioplasty, and Calcium Entry Blockers," FIRST CRITICAL HOUR--Trauma Update III, College of Continuing Education, Illinois State University, Normal, IL, 10/22/83

22. "Cerebral Preservation during CPR," Division of Cardiology, Department of Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA, 11/22/83

23. "Current Trends in Cardiopulmonary Resuscitation," Research Seminar, Department of Anesthesiology/Critical Care Medicine, University Health Center of Pittsburgh, Pittsburgh, PA, 1/26/84

24. "Advanced Cardiac Life Support in Perspective," Division of Critical Care Medicine, Department of Anesthesiology, University Health Center of Pittsburgh, Pittsburgh, PA, 2/10/84

25. "New Techniques in CPR," Respiratory Emergencies, Emergency Medical Services Institute/Pennsylvania Society of Respiratory Therapy, Marriott Hotel, Monroeville, PA, 2/18/84

26. "New Concepts in CPR," Department of Anesthesiology, Allegheny General Hospital, Pittsburgh, PA, 3/20/84

27. "Internal CPR- Manual," American College of Emergency Physicians Winter Symposium, Scottsdale, AZ, 4/8/84

28. "Brain Resuscitation Update," Staff Development Division, Department of Nursing, Montefiore Hospital, Pittsburgh, PA, 5/25/84

29. "Summary of Five Years of Resuscitation Research Center CPR Studies," International Resuscitation Research Center, School of Medicine, University of Pittsburgh, Pittsburgh, PA, 6/8/84

30. "Pharmacology of Resuscitation," Journal Club, Department of Anesthesiology/Critical Care Medicine, University Health Center of Pittsburgh, Pittsburgh, PA, 6/11/84

31. "Educational Objectives, Target Groups and Curricula for Disaster Management Planning," Planning Conference on Emergency Health and Medical Training for Disasters and Mass Casualty Incidents, Federal Emergency Management Agency, National Emergency Training Center, Emmitsburg, MD, 11/29/84

32. "Cerebral Resuscitation," Department of Critical Care Medicine, Naval Hospital, Bethesda, MD, 12/4/84

33. "Ischemic Brain Protection," RESUSCITATION: The Investigators meet the Practitioners, 1985 Cooperative Symposium of the University Association for Emergency Medicine and International Research Institute for Emergency Medicine, Orlando, FL, 2/8/85

34. "Cerebral Resuscitation," Anesthesia Department, Naval Hospital, Bethesda, MD, 4/22/85

35. "A Randomised Clinical Trial of Barbiturate Loading in Cardiac Arrest Survivors," Brain Resuscitation Clinical Trial Study

Group, Resuscitation Research Center, University of Pittsburgh, presented for authors at the Sixth International Symposium on Intracranial Pressure, Glasgow, Scotland, 6/13/85

36. "Workshop on New Approaches to Cardiopulmonary Resuscitation," Fourth World Congress on Intensive and Critical Care Medicine, Jerusalem, Israel, 6/28/85

37. "Quality Assurance and Risk Management in an Anesthesia Training Program," Anesthesia Department, Naval Hospital, Bethesda, MD, 7/29/85

38. "Current Concepts of Cardiopulmonary Resuscitation," Sixteenth Annual Anesthesiology Symposium, Tidewater Chapter, Association of Military Surgeons of the United States, Naval Hospital, Portsmouth, VA, 9/7/85

39. "Study Design and Evaluation," Journal Club, Anesthesia Residency, Naval Hospital, Bethesda, MD, 9/18/85

40. "New Concepts in Pharmacotherapy of ACLS," Department of Critical Care Medicine, Naval Hospital, Bethesda, MD, 10/30/85

41. "Pathophysiology of Cerebral Blood Flow," Department of Anesthesia, Naval Hospital, Bethesda, MD, 1/27/86

42. "Randomized Prospective Clinical Trials," Journal Club, Anesthesia Department, Naval Hospital, Bethesda, MD, 8/28/86

43. "Current Research," Brain Resuscitation: State of the Art Seminar, Emergency Medicine 1986, Scientific Assembly of the American College of Emergency Physicians, Atlanta, GA, 9/17/86

44. "Pharmacology of Resuscitation," Department of Critical Care Medicine, Naval Hospital, Bethesda, MD, 10/15/86

45. "Quality Assurance, Patient Care and Teaching in Department of Defense Hospitals," Workshop on Anesthesiology in Federal, Defense, and Veterans Administration Hospitals, American Society of Anesthesiologists Annual Meeting, Las Vegas, NV, 10/19/86

46. "Cardiopulmonary-Cerebral Resuscitation," Grand Rounds, Anesthesia Department, Naval Hospital, Bethesda, MD, 4/13/87

47. "Priorities and Recommendations in Resuscitation Research," International Resuscitation Research Symposium on the Reversibility of Clinical Death, Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 5/4/87

48. "Quality Assurance and Risk Management in an Anesthesia Training Program," Anesthesia Department, Naval Hospital, Bethesda, MD, 7/28/87

49. "Cardiopulmonary-Cerebral Resuscitation in the Intensive Care Unit," International Urban Emergency Medical Services Symposium, Beijing, China, 11/10/87

50. "Experimental Design," International Resuscitation Research Center, School of Medicine, University of Pittsburgh, Pittsburgh, PA, 5/4/88

51. "Cerebral Resuscitation," Division of Critical Care Medicine, Department of Medicine, Naval Hospital, Bethesda, MD, 6/21/88

52. "Cerebral Resuscitation," Affiliated Residency in Emergency Medicine, Center For Emergency Medicine of Western Pennsylvania, Pittsburgh, PA, 7/26/88

53. "Laboratory Data for the Brain Resuscitation Clinical Trial, Phase III," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 2/8/89

54. "Bicarbonate Controversy," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 2/15/89

55. "Electrical Safety and Resuscitation from Electrocution," Department of Electrical Engineering, University of Pittsburgh, Pittsburgh, PA, 2/26/89

56. "Innovations in Resuscitation," Second Annual Trauma Anesthesia and Critical Care Symposium, Baltimore, MD, 6/1/89
57. "Training in Trauma Anesthesia and Resuscitation," Second Annual Trauma Anesthesia and Critical Care Symposium, Baltimore, MD, 6/2/89
58. "Brain Resuscitation," Sixth World Congress on Emergency and Disaster Medicine, Hong Kong, 9/12/89
59. "New Techniques for Emergency Artificial Circulation," International Emergency/Disaster Medicine Symposium, Beijing, China, 9/17/89
60. "Neurological Management after Cardiac Arrest," International Emergency/Disaster Medicine Symposium, Beijing, China, 9/17/89
61. "Neurological Prognosis after Cardiac Arrest," International Emergency/Disaster Medicine Symposium, Beijing, China, 9/18/89
62. "Quality Assurance and Risk Management in an Anesthesia Training Program," Department of Anesthesiology, Montefiore Hospital, Pittsburgh, PA, 11/15/89
63. "Cerebral Resuscitation from Cardiac Arrest," Neuroanesthesia Conference, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 12/6/89
64. "Hong Kong Disaster Congress and China," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 1/31/90
65. "Resuscitation Research: Ongoing Projects," Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA, 2/3/90
66. "Bicarbonate Controversy," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 2/14/90
67. "Physiology and Pharmacology of Cardiopulmonary Cerebral Resuscitation," Department of Anesthesiology/Critical Care Medicine, Childrens Hospital of Pittsburgh. Pittsburgh, PA, 2/28/90
68. "Experimental Design," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 3/21/90
69. "Trials of Clinical Trials," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 3/28/90
70. "New Trends in CPR," TelePress Conference, United States Information Service, Dhahran, Saudi Arabia, Office of Program Coordination and Development, United States Information Agency, 5/15/90
71. "Current Methodology in Resuscitation Research," International Resuscitation Research Center and Department of Biological Sciences, University of Pittsburgh, Pittsburgh, PA, 4/20/90. "New Trends in CPR," TelePress Conference, United States Information Service, Dhahran, Saudi Arabia, Office of Program Coordination and Development, United States Information Agency, 5/15/90
72. "Cerebral Resuscitation in the 1990s," Neuroanesthesia and Critical Care 1990, Neurologic Anesthesia and Supportive Care Program, Department of Anesthesiology/Critical Care Medicine, and Center for Continuing Education, University of Pittsburgh, Pittsburgh, PA, 5/19/90
73. "Bicarbonate and Resuscitation," Sunrise Session, Nineteenth Annual Scientific and Educational Symposium, Society of Critical Care Medicine, San Francisco, CA, 5/31/90
74. "Getting the Job Done: Reducing Mortality and Morbidity in Acute Myocardial Infarction and Sudden Cardiac Death through Research in CPR Education and Quality Assurance," International Discussion Forum at Utstein Abbey, Laerdal Foundation for

Acute Medicine, Stavanger, Norway, 6/21/90

75. "Brain Resuscitation," Anesthesiology Grand Rounds, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 9/13/90
76. "Introduction to Experimentation," Division of Critical Care Medicine, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 9/18/90
77. "Experimental Design," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 9/26/90
78. "Brain Resuscitation," 17th Annual Symposium for Nurse Anesthetists: Perspectives in Anesthesia:1990, University of Pittsburgh School of Anesthesia For Nurses, Pittsburgh, PA, 9/28/90
79. "pH - Does It Matter?," Department of Critical Care Medicine, Saint Francis General Hospital, Pittsburgh, PA, 10/2/90
80. "Sodium Bicarbonate Improves Outcome after Ten Minutes of Cardiac Arrest in Dogs," Research Conference, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 10/4/90
81. "National and International Guidelines of CPR including LSFA," Symposium on Resuscitation Medicine for Industries - Past, Present and Future Potentials of Resuscitation Medicine, State-of-the-Art Conference, American College of Occupational Medicine, Pittsburgh, PA, 10/8/90
82. "Steroids in Brain Resuscitation," ASA Workshop "Optimizing Neurological Risk and Outcome Pre, Intra, and Post Neurological Insult: Controversies in Pharmacological Management," Annual Meeting, American Society of Anesthesiologists, Las Vegas, NV, 10/22/90
83. "Advanced Cardiac Life Support--Current and Future Trends," Center for Emergency Medicine of Western Pennsylvania, Pittsburgh, PA, 12/1/90
84. "Brain Resuscitation," Neuroanesthesia Seminar, Neurologic Anesthesia and Supportive Care Program, School of Medicine, University of Pittsburgh, Pittsburgh, PA, 1/7/91
85. "Bicarbonate and Resuscitation," Research Conference, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 1/17/91
86. "Perspectives on Experimental Acidosis," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 1/23/91
87. "CPR Controversies," Department of Anesthesiology, Children's Hospital of Pittsburgh, Pittsburgh, PA, 1/30/91
88. "Brain Resuscitation," Division of Critical Care Medicine, Department of Anesthesiology, Montefiore University Hospital, Pittsburgh, PA, 2/13/91
89. "Parametrics of Experimental CPR," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 2/13/91
90. "Bicarbonate in CPR: Useless or Useful?," Cardiovascular Research Conference, Division of Cardiology, Department of Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA, 2/19/91
91. "Research in Life Supporting First Aid Education," Task Force 1: International Co-operation and Help in Disaster, 7th World Congress on Emergency and Disaster Medicine, Montreal, Canada, 5/14/91
92. "Brain Resuscitation," 7th World Congress on Emergency and Disaster Medicine, Montreal, Canada, 5/15/91

93. "An International Mechanism for the Clinical Study of Multiple Organ Failure after Cardiac Arrest," presented for the authors (Abramson NS, Safar P, Staniaszek A, Cerchiari E), Proc Constituent Congress International Society for Pathophysiology, Abstract 16.1.02, p. 328, Constituent Congress International Society for Pathophysiology, Moscow, USSR, 5/29/91
94. "Polyorgan Post-Resuscitation Syndrome: It's Mitigation and Improved Cerebral Outcome by Hypertensive Hemodilution and Mild Hypothermia," presented for the authors (Safar P, Cerchiari E, Johnson D, Kuboyama K, Leonov Y, Oku K, Radovsky A, Sterz F, Tisherman S, Weinrauch V), Proc Constituent Congress International Society for Pathophysiology, Abstract 16.1.25, p. 334, Constituent Congress International Society for Pathophysiology, Moscow, USSR, 5/29/91
95. "Experimental Design," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 9/18/91
96. "Acid-Base Management," Preliminary Fact-finding Exercise, American Heart Association Emergency Cardiac Care Committee, Dallas, TX, 9/29/91
97. "Blood Flow during CPR," Division of Critical Care Medicine, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 10/3/91
98. "Cardiopulmonary Cerebral Resuscitation," 7th International Symposium on Cardiopulmonary Urgencies and Emergencies, Thorax Centrum of the Erasmus University, Rotterdam, The Netherlands, 11/21/91
99. "Neurologic Treatment after Cardiac Arrest," Second International Course of Neurologic Intensive Care: Present and Future of Neurologic Intensive Care, Mexico City, Mexico, 11/26/91
100. "New Perspectives in the Treatment of Global Ischemia-Anoxia," Symposium of Cardiopulmonary Cerebral Resuscitation, Second National Congress on Critical Care Medicine, Mexico City, Mexico, 11/27/91
101. "Controversial Therapies in Cardiopulmonary Cerebral Resuscitation," Symposium of Cardiopulmonary Cerebral Resuscitation, Second National Congress on Critical Care Medicine, Mexico City, Mexico, 11/27/91
102. "National Institutes of Health Program Project Grant: Cerebral Resuscitation from Cardiac Arrest in Dogs," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 1/8/92
103. "Brain Resuscitation," General Surgery Grand Rounds, West Penn Hospital, Pittsburgh, PA, 1/29/92
104. "International Resuscitation Research Center Recommendations for Revisions of American Heart Association Emergency Cardiac Care Guidelines," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 2/12/92
105. "Acid-Base Management," American Heart Association Emergency Cardiac Care Committee, Conference on Standards and Guidelines in Emergency Cardiac Care and CPR, American Heart Association, Dallas, TX, 2/23/92
106. "Bicarbonate in Brain Resuscitation," Neuroanesthesia Conference, Division of Neurologic Anesthesia and Supportive Care, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 3/16/92
107. "Advanced Cardiac Life Support Update," Critical Care Grand Rounds, Division of Critical Care Medicine, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 3/18/92
108. "Introduction to Experimental Resuscitation," Animal Physiology (Biosciences 1870), Division of Biological Sciences, International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 4/16/92
109. "Consider Bicarb-- Does Sodium Bicarbonate Improve Survival from Cardiac Arrest," Emergency Medicine Journal Club, Center for Emergency Medicine of Western Pennsylvania, Pittsburgh, PA, 4/21/92
110. "The Brain Oriented Protocol of Treatment," 10th World Congress of Anaesthesiologists, The Hague, The Netherlands, 6/18/92

111. "Animal Intensive Care and Outcome Evaluation," National Institutes of Health Program Project Grant Site Visit, International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 6/22/92
112. "Administration, Data Management, Statistics," National Institutes of Health Program Project Grant Site Visit, International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 6/22/92
113. "Catecholamine and Buffer Therapy in CPR," National Institutes of Health Program Project Grant Site Visit, International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 6/22/92
114. "ACLS Update," Anesthesiology Grand Rounds, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 9/10/92
115. "General Intensive Care Life Support of Dogs," with Peter Safar, M.D., International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 9/11/92
116. "Experimental Design," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 9/11/92
117. "ACLS Update," 19th Annual Symposium for Nurse Anesthetists: Perspectives in Anesthesia:1992, University of Pittsburgh School of Anesthesia For Nurses, Pittsburgh, PA, 9/26/92
118. "Cardiac Arrest and Acid/Base Perfusion Deficits," with Martin von Planta, M.D., Anesthesiology Grand Rounds, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 10/8/92
119. "Cardiopulmonary Cerebral Resuscitation," Update on Neurocritical Care, Annual Meeting, American Society of Anesthesiologists, New Orleans, LA, 10/20/92
120. "NaHCO₃: To Bicarb or Not to Bicarb," Update on Advanced Cardiac Life Support, Annual Meeting, American Society of Anesthesiologists, New Orleans, LA, 10/21/92
121. "What, How and Why of Hemodynamic Monitoring in Neurologic Intensive Care," Third International Course of Neurologic Intensive Care: "Dr. Jose Manuel Velasco Siles," Hospital Juarez de Mexico, Mexico City, Mexico, 11/9/92
122. "Use and Abuse of Steroids in Neurologic Intensive Care," Third International Course of Neurologic Intensive Care: "Dr. Jose Manuel Velasco Siles," Hospital Juarez de Mexico, Mexico City, Mexico, 11/9/92
123. "Future of Neurologic Intensive Care," Third International Course of Neurologic Intensive Care: "Dr. Jose Manuel Velasco Siles," Hospital Juarez de Mexico, Mexico City, Mexico, 11/10/92
124. "Use and Abuse of Mannitol in Critically Ill Neurologic Patients," Third International Course of Neurologic Intensive Care: "Dr. Jose Manuel Velasco Siles," Hospital Juarez de Mexico, Mexico City, Mexico, 11/11/92
125. "Post-Reanimation Cerebral Syndrome," Third International Course of Neurologic Intensive Care: "Dr. Jose Manuel Velasco Siles," Hospital Juarez de Mexico, Mexico City, Mexico, 11/11/92
126. "Basic Life Support and CPR," First International Course of Intensive Care, Hospital San Jose de Zamora, Zamora, Mexico, 11/13/92
127. "Advanced Cardiac Life Support," First International Course of Intensive Care, Hospital San Jose de Zamora, Zamora, Mexico, 11/13/92
128. "Sodium Bicarbonate," Critical Care Medicine Research Conference, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 12/14/92
129. "Arrest Time Dependence of Sodium Bicarbonate Effects," International Resuscitation Research Center, University of

Pittsburgh, Pittsburgh, PA, 3/17/93

130. "ACLS Update," Medical Grand Rounds, Saint Francis General Hospital, Pittsburgh, PA, 5/5/93

131. "Work in Progress: Catecholamine Buffer Interactions in Resuscitation," Research Conference, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 5/27/93

132. "Cerebral Resuscitation," Neuroanesthesia Conference, Division of Neurologic Anesthesia and Supportive Care, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 5/31/93

133. "Resuscitation- New Techniques and Guidelines," Mercy Hospital, Johnstown, PA, 6/15/93

134. "Emergency Medical Services Perspectives," Lorenz Böhler Trauma Hospital, Vienna, Austria, 6/24/93

135. "Physiological Data Acquisition and Analysis," Lorenz Böhler Trauma Hospital, Vienna, Austria, 6/24/93

136. "International Resuscitation Research Center: Mission and Assets," Department of Anesthesia Functional Team Training, Surgical Directorate, NR Fleet Hospital 250 CBTZ 7, Pittsburgh, PA, 7/17/93

137. "Dog External CPR Outcome Models," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 9/8/93

138. "Brain Resuscitation: What Should We Really Do," Department of Anesthesiology, Rush Presbyterian St. Luke's Medical Center, Rush Medical College, Chicago, IL, 10/6/93

139. "Molecular Biology of Acidosis," Grand Grounds, Department of Anesthesiology, Rush Presbyterian St. Luke's Medical Center, Rush Medical College, Chicago, IL, 10/7/93

140. "Sodium Bicarbonate: When and Why?," Department of Anesthesiology, Oakland Veterans' Administration Hospital, Pittsburgh, PA, 12/8/93

141. "What's New in CPR?" Anesthesiology Grand Rounds, Department of Anesthesiology, Sewickley Valley Hospital, Sewickley, PA, 2/10/94

142. "Arrest Interval and Sodium Bicarbonate Dependence of CPR Hemodynamics," Critical Care Medicine Research Conference, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 2/21/94

143. "THAM versus Sodium Bicarbonate," Wednesday Conference, Department of Anesthesiology/Critical Care Medicine, Presbyterian University Hospital, Pittsburgh, PA, 4/13/94

144. "Cerebral Resuscitation," Neuroanesthesia Conference, Division of Neurologic Anesthesia and Supportive Care, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 6/13/94

145. "Plans for the Future," International Resuscitation Research Center, University of Pittsburgh, Pittsburgh, PA, 6/15/94

146. "Derangements of the Metabolic Milieu in Trauma," Trauma Anesthesia Update 1994, Captiva Island, FL, 9/9/94

147. "Molecular Biology of Ischemic Acidosis," Symposium on Realities in the Use of Positive Inotropic Drugs, Fifth National Congress of the National Association of Specialists and Residents in Critical Care Medicine, Acapulco, Mexico, 9/23/94

148. "Advances in Cardiopulmonary Cerebral Resuscitation," Symposium on Cardiopulmonary Resuscitation, Fifth National Congress of the National Association of Specialists and Residents in Critical Care Medicine, Acapulco, Mexico, 9/23/94

149. "Fluid Management in the Critically Ill Patient," Symposium on Intra- and Interhospital Transport of the Critically Ill Patient,

Fifth National Congress of the National Association of Specialists and Residents in Critical Care Medicine, Acapulco, Mexico, 9/24/94

150. "Influence of Arrest Interval and Sodium Bicarbonate on Dysrhythmias during and after CPR in Dogs," Research Conference, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 9/29/94

151. "Advanced Cardiac Life Support Update," Citizen's General Hospital, New Kensington, PA, 10/11/93

152. "Exemption from Informed Consent: A Necessity in Emergency Critical Care Research," Society of Critical Care Medicine Statement, FDA/NIH Public Forum on Informed Consent in Clinical Research Conducted in Emergency Circumstances, Bethesda, MD, 1/10/95

153. "Molecular Biology of Ischemic Acidosis," Safar Center for Resuscitation Research, University of Pittsburgh, Pittsburgh, PA, 1/25/95

154. "Cardiopulmonary Arrest and Related Research," Anesthesiology Research Mini-Symposium "Moving Resuscitation into the 21st Century," Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 4/6/95

155. "Cardiopulmonary Arrest and Ischemic Reperfusion," Safar Center for Resuscitation Mini-Symposium in honor of Henrik H. Bendixen, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 4/13/95

156. "New Insights in CPR- Have We Reached the Limits?," Eighth Annual Trauma Anesthesia and Critical Care Symposium, Baltimore, MD, 5/12/95

157. "Intracellular pH Regulation," Division of Critical Care Medicine, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 10/27/95

158. "To Buffer or Not to Buffer," Twenty-Fifth Annual Educational and Scientific Symposium, Society of Critical Care Medicine, New Orleans, LA, 2/7/96

159. "Alternatives to Conventional Chest Compression," Wolf Creek IV-CPR Experts' Conference, Palm Springs, CA, 4/14/96

160. "Minimizing Hypoxic Injuries of Cardiac Arrest," Wolf Creek IV-CPR Experts' Conference, Palm Springs, CA, 4/15/96

161. "Cerebral Resuscitation: New Pharmacologic Concepts," Provincial Satellite Symposium, Seventh International Course on Intensive Care "Jose Manuel Velasco Silez," Monterrey, Mexico, 8/24/96

162. "CPR: Ethical Concepts in the Early 21st Century," Provincial Satellite Symposium, Seventh International Course on Intensive Care "Jose Manuel Velasco Silez," Pachuca, Mexico, 8/26/96

163. "Brain Death and Organ Donation," Seventh International Course on Intensive Care "Jose Manuel Velasco Silez," Hospital Magdalena de las Salinas, Mexico City, Mexico, 8/28/96

164. "Ischemic Acidosis: It's Not A Simple Disorder," Safar Center for Resuscitation Research Conference, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 12/18/96

165. "Ischemic Acidosis," Critical Care Medicine Research Conference, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 3/31/97

166. "Global Brain Ischemia," Division of Critical Care Medicine, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 4/15/97

167. "Just What Do You Mean By Ischemic Acidosis?," Anesthesiology Grand Rounds, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 1/22/98

168. "CPR Program Update," Safar Center for Resuscitation Research Conference, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA, 4/8/98
169. "Human Patient Simulation," MedSMART, Inc and Safar Center for Resuscitation Research, University of Pittsburgh, Pittsburgh, PA, 8/9/01
170. "The Injured Brain: Managing Controversy," Anesthetic and Perioperative Complications: Management & Treatment. Cancun, Mexico, 2/16/07
171. "The Injured Brain: Managing Controversy," Anesthesiology Grand Rounds, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 3/8/07
172. "Hypothermia after TBI 2007," It's Hip to Be Cool: Hypothermia and the Injured Brain, Society of Neurosurgical Anesthesia & Critical Care Breakfast Panel, American Society of Anesthesiologists Annual Meeting, 10/17/2007
173. "Evaluating Functional Outcome in Cardiac Arrest: The Cerebral Performance Categories," Consensus on Outcomes for Resuscitation Science Conference, American Heart Association, Washington, D.C., 5/5/08
174. "Applied Biostatistics," Applied Research Principles, Department of Anesthesiology Research Training Symposium, Peter M. Winter Institute for Simulation, Education, & Research (WISER), University of Pittsburgh, Pittsburgh, PA, 8/22/08
175. "Reanimation: Look Mom, No Pulse!" 77th Annual Meeting, American Association of Nurse Anesthetists, Seattle, WA, 8/9/10
176. "Systems Thinking in Resuscitation," 10th China-International Modern Emergency and Disaster Medicine Forum 2012, Beijing, China, 8/18/12
177. "Glycemic Control in the Critically Ill," Anesthesiology Grand Rounds, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 4/25/13
178. "Meta-Analysis: Tight Glycemic Control," Anesthesia Resident Case Management Problem-Based Learning Discussion Series, Department of Anesthesiology, University of Pittsburgh, Pittsburgh, PA, 3/31/16, 4/7/16

C. Other research related activities.

7/94-7/01: Associate Director for Cardiopulmonary Arrest Programs, Safar Center for Resuscitation Research, University of Pittsburgh

Responsibilities include supervision of all clinical and laboratory activities relating to cardiopulmonary arrest. as well as assisting all investigators with respect to clinical trial and experimental design and execution, development of data management and acquisition capability, development of cell culture models of ischemic acidosis; laboratory animal care and use; laboratory maintenance, capital development and environmental/pest control; technician recruitment, hiring, firing, training, retention, counseling and scheduling; supply pricing, procurement and utilization, and overall laboratory organization. Additional responsibilities include: recruitment, interviewing, scheduling, and supervising of fellow, resident and medical student investigators; maintenance of a large bibliographic data base, experimental design and execution (clinical, laboratory and educational research studies), statistical consultation, data analysis including computer programming, abstract, poster and oral paper preparation and presentation, manuscript writing, editing, and reviewing (cf. Publications for specific topics), grant preparation and review, animal use and care documentation, office supply and computer equipment and software (bibliographic, statistical, word processing) ordering; liaison to Project Coordinators and external funding and collaborating agencies.

2/89-7/94: Associate Director, International Resuscitation Research Center, University of Pittsburgh.

Responsibilities included supervision of all laboratory activities and all investigators with respect to experimental design and execution, laboratory animal care and use; laboratory maintenance, capital development and environmental/pest control; technician recruitment, hiring, firing, training, retention, counseling and scheduling; supply pricing, procurement and utilization, and overall

laboratory organization. Additional responsibilities include: recruitment, interviewing, scheduling, and supervising of fellow, resident and medical student investigators; maintenance of a large bibliographic data base, experimental design and execution (laboratory and educational research studies), statistical consultation, data analysis including computer programming, abstract, poster and oral paper preparation and presentation, manuscript writing, editing, and reviewing (cf. Publications for specific topics), grant preparation and review, animal use and care documentation, office supply and computer equipment and software (bibliographic, statistical, word processing) ordering; liaison to Clinical and Administrative Associate Directors, Project Coordinators and external funding and collaborating agencies.

11/84-6/88: Quality Assurance Coordinator, Surgical Directorate, Naval Hospital, Bethesda, MD.

Responsibilities included insuring the quality and appropriateness of all surgical and anesthetic care, review of all Surgical Directorate Departmental Quality Assurance activities and monthly minutes; insuring compliance with all Joint Commission on the Accreditation of Hospitals, Department of Defense, Navy, NAVMEDCOM, Regional and Hospital Instructions on Quality Assurance; and numerous epidemiological and managerial studies, including Recovery Room Staffing, Central Venous Catheterization, Operating Room Efficiency, Impact of Inpatient Bed Shortage on Graduate Medical Education, ICU Staffing and Bedspace; extensive documentation and committee presentations.

8/84-9/86: Quality Assurance Officer, Anesthesia Department, Naval Hospital, Bethesda, MD.

Responsibilities including prospective monitoring as well as evaluation of all anesthetics administered in the hospital; review of all anesthetic records for morbidities and for quality of documentation; development and data management for a departmental specialty specific occurrence screening program, and development of data bases for intraoperative, Perioperative, and anesthetic mortality, failed regional anesthetics, accidental dural punctures in epidural anesthesia, etc.

2/83-6/84: Assistant Director for Laboratory Affairs, Resuscitation Research Center, University of Pittsburgh.

Responsibilities included acting as a consultant to all investigators with respect to experimental design and execution, as well as supervision of all aspects of laboratory maintenance, technician training and scheduling, animal care, supply procurement and utilization, and overall laboratory organization.

4/79-6/84: Coordinator of CPR Research, Resuscitation Research Center, University of Pittsburgh.

Responsibilities including recruitment, interviewing, scheduling, and supervising medical student investigators; literature searches, experimental design and execution (laboratory and educational research studies), data analysis including elementary computer programming, abstract, poster and oral paper preparation and presentation, manuscript writing, editing, and reviewing (cf. Publications for specific topics). Students from this program won the American Heart Association, Pennsylvania Affiliate, Undergraduate Research Prize for the five consecutive years 1980-1984.

9/77-8/78: Library and laboratory research with Professor Edward S. Redgate, Department of Physiology, University of Pittsburgh: "The Psychoneuroendocrine Effects of the Early Stages of Traumatic Shock" and "A Transnasal (Microneurosurgical) Hypothalamic Isolation in the Rat."

1/77-6/77: Laboratory research with Professor Dudley R. Herschbach, Department of Chemistry, Harvard University: "Cluster Formation in Supersonic Ammonia Gas Molecular Beams," "Low Resolution Nuclear Magnetic Resonance of a Single Crystal of Gypsum: A Determination of Equilibrium Proton Location" (rewrote Laboratory Manual Chapter), "The Vibrational and Rotational Manifold of the (XeF)* Laser in the Region 3490 to 3510 Angstroms."

9/75-6/77: Laboratory research with Professor Roy G. Gordon, Department of Chemistry, Harvard University: "The Near-Infrared Reflectivity of Fluorine Doped Tin Oxide Epitaxial Films" (Senior Honors Thesis); Library research: "Transmission Electron Microscopy in the Study of Epitaxial Crystal Growth," and "The Use of DMSO/H₂O Binary Mixtures in the Study of the Alkaline Hydrolysis Reaction."

1/75-6/75: Library research with Visiting Professor Gerald Koepl, Department of Chemistry, Harvard University: "Quantum, Classical, and Transition State Models of the H₂ + X System."

1/74-6-74: Laboratory research with Professor Daniel Branton, Department of Biology, Harvard University: "Short Term Effects of Near-lethal Doses of Testosterone Propionate on Spermatogenesis in the Mature Rat."

9/73-6/74: Educational research with Professor George Wald, Department of Biology, Harvard University: "Application of the Polaroid ED-10 Photomicrography System in Natural Sciences 5 Laboratory Exercises: Educational Potential."

OTHER PROFESSIONAL ACTIVITIES

Consultant:

Asmund Laerdal Company (ACLS Manikin Development)
Respironics Company (Emergency Ventilation Mask Development)
Department of Human Resources, University of Pittsburgh (Research Job Classifications)
Intersearch Corporation (Marketing Research)
SmithKline Beecham Pharmaceuticals (Marketing Research)
Link Flight Simulation Division, CAE-Link Corporation (Patient Simulator)

Reviewer: Circulation

Journal of the American Medical Association

Chest

Critical Care Medicine

Annals of Emergency Medicine

American Journal of Emergency Medicine

Journal of the World Association for Emergency and Disaster Medicine

Disaster Medicine

Good Housekeeping

Book Reviewer: Journal of the American Medical Association

Chest

Anesthesia and Analgesia

Military Medicine

LIST of CURRENT RESEARCH INTERESTS:

Mechanisms of Ischemic Acidosis/Therapeutic pH correction
Effects of Sodium Bicarbonate on Cardiac Resuscitation and Neurological Outcome after Cardiac Arrest in Dogs
Sodium Bicarbonate in Prehospital Cardiac Arrest (Clinical Studies)
Effect of Aortic Occlusion on Hemodynamics during CPR, Survival and Neurological Outcome in Dogs
Survival and Neurological Outcome after Aortic Occlusion and Intra-aortic Administration of Epinephrine during Experimental CPR
Continuous Epinephrine Infusion for Cardiopulmonary Cerebral Resuscitation
Mechanisms of Intracellular pH Restoration after Glutamate-Induced Cytosolic Acidosis
Interaction of Epinephrine and Sodium Bicarbonate in Cardiac Resuscitation
Serial Correlation and Mathematical Coupling in Repeated Measures Analysis of Variance

SERVICE:

1. University and Medical School.

1/82-12/82 Chairman, Resident's Heart Fund Drive, University Health Center of Pittsburgh.

1/83-6/84 Research Review Committee, Center for Emergency Medicine of Western Pennsylvania

7/84-6/88 Mock Oral Board Examination Examiner, Anesthesia Residency, Department of Anesthesia, Naval Hospital, Bethesda, MD

10/84-6/88 Member, Contingency Execution Team, Naval Hospital, Bethesda, MD

12/84-6/88 Terminal Area Security Officer, Naval Hospital, Anesthesia Department, Bethesda, MD

1/85-6/88 Physician Member, Education and Evaluation Committee, Navy Nurse Corps Anesthesia Program Phase II (Clinical), Naval Hospital, Bethesda, MD

- 12/85-6/88 Chairman, Ad Hoc Committee on Operating Room Efficiency and Utilization, Surgical Directorate, Naval Hospital, Bethesda, MD
- 11/86-2/87 Representative, Quality Assurance Committee, Mobile Medical Augmentation Readiness Team Amphibious Squadron Eight
- 5/87-6/88 Principal Consultant Central Venous Catheterization Study, Quality Assurance Department, Naval Hospital, Bethesda, MD
- 1/88-6/88 Quality Assurance Coordinator, (Special Projects), Surgical Directorate, Naval Hospital, Bethesda, MD
- 7/89-8/96 Critical Care Curriculum Coordinator, University Health Center of Pittsburgh, Anesthesiology Residency, Pittsburgh, PA
- 7/89-6/92 Coordinator, Pediatric Critical Care Rotations, University Health Center of Pittsburgh, Adult Critical Care Medicine Fellowship, Pittsburgh, PA
- 7/89-6/91 Coordinator, Introduction to Resuscitation Medicine, Third Year Medical Students' Rotation, University of Pittsburgh School of Medicine, Department of Anesthesiology/Critical Care Medicine, Pittsburgh, PA
- 7/89-present Internal Manuscript and Grant Reviewer, Department of Anesthesiology/Critical Care Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 7/89-6/92 Coordinator, Neurologic Anesthesia and Supportive Care Fellowship, Montefiore Hospital, Pittsburgh, PA
- 7/89-6/91 Coordinator, Resuscitation Research Conferences, International Resuscitation Research Center, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 1/90-8/96 Member, Surgical Intensive Care Unit Committee, Montefiore Hospital, Pittsburgh, PA
- 1/90-3/90 Member, 1990 Resident Selection Committee, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA
- 3/90-6/96 Mock Oral Board Examination Examiner, Anesthesia Training Program, Department of Anesthesiology/Critical Care Medicine, University Health Center of Pittsburgh, Pittsburgh, PA
- 4/90-6/93 Member, Quality Assurance Committee, Department of Anesthesiology/Critical Care Medicine, University Health Center of Pittsburgh, Pittsburgh, PA
- 5/90-6/93 Member, Merit System Committee, Division of Critical Care Medicine, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA
- 5/90-6/03 Designated Spokesman, Animal Care and Use in Medical Research, Health Sciences News Bureau, University of Pittsburgh Medical Center, Pittsburgh, PA
- 7/90-6/96 Medical Student Applicant Interviewer, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 8/90-6/93 Member, Joint Standards Committee, Medical and Health Care Division, University of Pittsburgh Medical Center, Pittsburgh, PA
- 1/91-6/93 Infection Control Committee, Montefiore University Hospital, Pittsburgh, PA
- 1/91-3/91 Member, 1991 Resident Selection Committee, Department of Anesthesiology/Critical Care Medicine, University Health Center of Pittsburgh, Pittsburgh, PA
- 3/91-7/93 Member, Task Force on Uniform CPR codes, University of Pittsburgh Medical Center, Pittsburgh, PA
- 4/91-6/93 Member, Ad Hoc Committee on Housestaff Credentialing, Division of Critical Care Medicine, Department of Anesthesiology/Critical Care Medicine, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA
- 5/91-6/96 Member, Anesthesiology Standards Committee Subgroup, University of Pittsburgh Medical Center, Pittsburgh, PA
- 7/91-2/92 Member, Bridge Issues Task Force, University of Pittsburgh Medical Center, Pittsburgh, PA
- 7/91-12/91 Chairman, ICU Committee, Montefiore University Hospital, Pittsburgh, PA
- 8/91-6/93 Member, Operating Room Extension of Guidelines for Forgoing Life-Sustaining Treatment Subcommittee, Ethics and Human Rights Committee, Presbyterian-University Hospital, Pittsburgh, PA
- 8/91-12/93 Member, Non-heart-beating Donor Subcommittee, Ethics and Human Rights Committee, Presbyterian-University Hospital, Pittsburgh, PA
- 8/91-12/91 Member, Ad Hoc Committee on Arterial Blood Gas Turnaround Time Issues, Montefiore University Hospital, Pittsburgh, PA
- 8/91-present Research Preceptor, Alternate Research Requirement, Anesthesia Graduate Nursing Program, School of Nursing, University of Pittsburgh, Pittsburgh, PA
- 8/91-12/91 Chairman, Subcommittee on Standing Orders, ICU Committee, Montefiore University Hospital, Pittsburgh, PA
- 9/91-6/93 Member, Computer Usage Committee, Department of Anesthesiology/Critical Care Medicine, University

- Health Center of Pittsburgh, Pittsburgh, PA
- 10/91-6/93 Member, Ethics Committee, Montefiore University Hospital, Pittsburgh, PA
- 11/91-3/92 Member, 1992 Resident Selection Committee, Department of Anesthesiology/Critical Care Medicine, University Health Center of Pittsburgh, Pittsburgh, PA
- 12/91-4/93 Member, ICU Committee, Montefiore University Hospital, Pittsburgh, PA
- 2/92-7/93 Member, Cardiopulmonary Resuscitation Quality Assurance Committee, University of Pittsburgh Medical Center, Pittsburgh, PA
- 2/92-6/93 Member, Bridge Transport Committee, University of Pittsburgh Medical Center, Pittsburgh, PA
- 7/92-12/93 Chairman, Task Force on Uniform CPR Codes, University of Pittsburgh Medical Center, Pittsburgh, PA
- 8/92-6/93 Member, Interunit Committee on ICU and OR Communications, Montefiore University Hospital, Pittsburgh, PA
- 9/92-8/96 Chairman, Working Group on Anesthesia Research, Department of Anesthesiology/Critical Care Medicine
- 11/92-3/93 Member, 1993 Resident Selection Committee, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA
- 12/92-12/96 Member, Steering Committee, Brain Resuscitation Clinical Trial, Part IV (BRCT IV), National Institutes of Health RO1 NS15295-15
- 1/93-12/94 Member, Conference Committee, International Resuscitation Research Conference, School of Medicine, University of Pittsburgh, May 5-8, 1994
- 2/93-12/98 Data Management Consultant, Operating Room and Same Day Surgery Throughput Effectiveness Study, Montefiore University Hospital, Pittsburgh, PA
- 2/93-4/93 Member, MUH/PUH ICU Committee Task Force, University of Pittsburgh Medical Center, Pittsburgh, PA
- 4/93-1/01 Ad Hoc Member, Intensive Care Unit Committee, University of Pittsburgh Medical Center, Pittsburgh, PA
- 4/93-1/01 Ad Hoc Member, Intensive Care Unit Quality Assurance Committee, University of Pittsburgh Medical Center, Pittsburgh, PA
- 6/93-6/03 Lecturer, Health Sciences Outreach Education Program, Center for Continuing Education, University of Pittsburgh Medical Center, Pittsburgh, PA
- 7/93-12/93 Member, Ethics Committee, University of Pittsburgh Medical Center, Pittsburgh, PA
- 7/93-present Member, Medical Emergency Response Improvement Team (MERIT, formerly Cardiopulmonary Resuscitation Quality Assurance Committee, University of Pittsburgh Medical Center, Pittsburgh, PA
- 11/92-3/93 Member, 1994 Resident Selection Committee, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA
- 12/93-6/97 Member, ICU Pharmacy Cost Task Force, University of Pittsburgh Medical Center, Pittsburgh, PA
- 10/94-6/96 Member, Clinical Care Committee, Montefiore University Hospital, Pittsburgh, PA
- 7/94-6/97 Member, Task Force on Monitoring, Physiology and Laboratory Data Set, Project Impact, Society of Critical Care Medicine and Tri-Analytics
- 10/94-6/96 Member, Clinical Care Committee, Montefiore University Hospital, Pittsburgh, PA
- 6/95-12/96 Team Leader, Task Force on Arterial Catheterization Guidelines, Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA
- 7/95-12/96 Member, Lobectomy Clinical Pathway Task Force, University of Pittsburgh Medical Center, Pittsburgh, PA
- 6/95-12/95 Member, Ad Hoc Task Force on the Use of Neuromuscular Blockade in the Endotracheal Intubation of the Critically Ill. Department of Anesthesiology/ Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA
- 9/95-12/97 Team Leader, Task Force on Neonatal Resuscitation Models, Consensus Conference on Guidelines for Pediatric CPR Models, American Heart Association, Newark, Delaware, September, 1995
- 10/95 Journal Club Host/Preceptor, Department of Anesthesiology/ Critical Care Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA
- 5/96-12/96 Curriculum Consultant, Endotracheal Intubation Refresher Training Committee, Department of Respiratory Care, University of Pittsburgh Medical Center, Pittsburgh, PA
- 2/97-12/97 Member, Pharmacy Task Force on Fosphenytoin, University of Pittsburgh Medical Center, Pittsburgh, PA
- 1/98-8/98 Member, Expert Panel, "Challenging Sudden Death: A Community Guide to Help Save Lives," Carmel, IN: Catalyst Research and Communications
- 3/98-4/98 Member, Steering Committee, Faculty Association of the School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 4/98-present Member, Council, Faculty Association of the School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 4/98 Member, Ad Hoc Faculty/Staff Committee to Interview Senior Vice Chancellor (Health Sciences)/Dean (School of

- Medicine), University of Pittsburgh, Pittsburgh, PA
- 5/98-5/99 Member, Planning Committee, 46th Annual Meeting, Association of University Anesthesiologists, Pittsburgh, PA
- 9/98 Consultant, Technology Transfer Committee, University of Pittsburgh, Pittsburgh, PA
- 10/98-9/03 Member, Operating Room Subcommittee, Compliance Advisory Committee, University of Pittsburgh Physicians, University of Pittsburgh Medical Center, Pittsburgh, PA
- 8/99-6/00 Member, Trauma Medical Audit Committee, University of Pittsburgh Medical Center, Pittsburgh, PA
- 1/00-1/05 Member, Advisory Board, National Center for Early Defibrillation, University of Pittsburgh, Pittsburgh, PA
- 10/00-9/01 Member, Working Group on Revising the Research Integrity Policy, University Senate, University of Pittsburgh, Pittsburgh, PA
- 11/00-5/03 Member-at-Large (Faculty Representative), Executive Steering Committee, Department of Anesthesiology and Critical Care Medicine, University of Pittsburgh Physicians, University of Pittsburgh Medical Center, Pittsburgh, PA
- 1/01-9/07 Member, Graduate Medical Education Committee, Medical Education Program, University of Pittsburgh Medical Center, Pittsburgh, PA
- 1/01-6/07 Member, Critical Care Services Committee, University of Pittsburgh Medical Center, Pittsburgh, PA
- 9/02-06/06 Member, Executive Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 9/02-06/06, 7/07-present Member, Expanded Executive Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 9/02-06/04 Senate Liaison, Admissions and Student Aid Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 9/02-06/04 Senate Liaison, Computer Usage Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 9/02-06/03 Senate Liaison, Educational Policies Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 9/02-06/04 Senate Liaison, University Press Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 9/02-6/06 Member, Council of Campus Leadership, University Senate, University of Pittsburgh, Pittsburgh, PA
- 3/03-5/03 Member, American Heart Association E-Learning Steering Committee
- 8/03-present Course Director, Resuscitology (MSELCT 5851), Department of Anesthesiology, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 7/04-06/06 Senate Liaison, Bylaws and Procedures Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 7/04-06/06 Senate Liaison, Community Relations Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 7/04-06/06 Senate Liaison, Benefits and Welfare Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 7/04-06/06 Senate Liaison, Commonwealth Relations Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 1/05-2/05 Member, Reorganization Committee, National Center for Early Defibrillation, University of Pittsburgh, Pittsburgh, PA
- 7/05-06/06 Member, Elections Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 7/07-6/13 Member, Bylaws and Procedures Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 7/07-6/13 Member, Expanded Executive Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 7/09-present Acting Treasurer, Faculty Association of the School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 9/10-6/13 Director, Outreach Program, University Senate, University of Pittsburgh, Pittsburgh, PA
- 4/12-present Member, Ad Hoc Committee on Transgender Issues, University Senate, University of Pittsburgh, Pittsburgh, PA
- 7/13-present Pro Tem Member and Co-Chair, Bylaws and Procedures Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 4/14-present Pro tem Member, Subcommittee on Academic Freedom and Electronic Media, Tenure and Academic Freedom Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 6/14-present Member, Ad Hoc Committee to Review Guidelines for the Evaluation of Tenured Faculty and Associated Salary Decisions, University Senate, University of Pittsburgh, Pittsburgh, PA
- 11/14-present Pro tem Member, Tenure and Academic Freedom Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 2/15-present Member, Digital Ethics Working Group of the Standing Committees of the University Senate, University of Pittsburgh, Pittsburgh, PA
- 9/15-present Member, Planning Committee, “Academic Freedom in the 21st Century: Challenges and Opportunities,” Plenary Session, University Senate, University of Pittsburgh, Pittsburgh, PA
- 10/15-present Pro tem Member, Investigative Subcommittee, Tenure and Academic Freedom Committee, University Senate, University of Pittsburgh, Pittsburgh, PA
- 11/15-present Member and Critical Care Consultant, Use of Personal Protective Equipment to Ensure Safety (UPPEES) Task Force, (Ja Hyun Kang, Principal Investigator) School of Nursing, University of Pittsburgh, Pittsburgh, PA

2. Community activities.

1975-1984	Present "Start A Heart" Program for Layperson CPR Instruction (Over 2300 CPR Providers and Instructors trained since 1975)
1975-Present	Member, Harvard Varsity Club
1978-1979	Associate Member, Navy Yacht Club of Newport, Rhode Island
1978-1984	Member, Harvard Club of Western Pennsylvania
1980-1984	Member, Mutual Association for Professional Services
1983-1984	Member, Board of Directors, Western Pennsylvania Heart Association
1983-1988	Member, Reserve Officer's Association
1983-Present	Life Member, Association of the United States Navy (formerly Naval Reserve Association, member number 243539)
1984-1989	Member, Commissioned Officers Mess, Bethesda, MD
1989-1996	Founding Member, Friends of the National Library of Medicine
1990-1991	Board of Directors, Godspeed House, Inc (Hospice)
1990-1992	Member, Harvard Club of Washington, D.C.