

STATEMENT OF ABSENCE OF REASONS FOR NON-BESTOWAL AND/OR INCOMPATIBILITY  
PURSUANT TO ART. 20 OF LEGISLATIVE DECREE N. 39/2013

The undersigned Billiar Timothy Robert with reference to the assignment of member of the Board of Directors of the Ri.MED Foundation, and aware of the criminal liability established by law for false declarations and untruthful statements (art. 76, D.P.R. n. 445/2000),

**HEREBY STATES**

**to be in one of the following conditions**

1. [X] absence of any reason for non-bestowal and/or incompatibility, pursuant to Legislative Decree n. 39/2013, with reference to the assumption of the aforementioned assignment/s;
2. [ ] presence of the following reason/s for **non-bestowal** pursuant to the provisions of Legislative Decree n. 39/2013 with reference to the following positions and/or assignments;

POSITION/ASSIGNMENT	REFERENCE LAW OF LEGISLATIVE DECREE N. 39/2013

3. [ ] presence of the following reason/s of **incompatibility** pursuant to the provisions of Legislative Decree n. 39/2013 with reference to the following positions and/or assignments:

POSITION/ASSIGNMENT	REFERENCE LAW OF LEGISLATIVE DECREE N. 39/2013

and to commit to remove this/these reason/s within 15 (fifteen) days from the date of this statement.

The undersigned is also aware that while awaiting for the expiry of the 15 (fifteen) days, the effectiveness of the appointment shall in any case remain conditional upon the removal of the causes of incompatibility.

The undersigned undertakes to promptly notify any potential new cause of incompatibility and to submit an annual statement on the absence of one of the causes of incompatibility, fully aware of the provisions of art. 20, par. 5, Legislative Decree n. 39/2013 in case of ascertained untruthful statement.

Also, by signing this document the undersigned

**HEREBY STATES**

4. to be informed that, pursuant to the provisions of art. 20 of Legislative Decree n. 39/2013 and subsequent modifications and amendments, the present statement will be published on the Ri.MED Foundation's website, and expressly authorizes the processing of his personal data in compliance with the provisions on this subject matter of Legislative Decree n. 196/2003 and subsequent modifications and amendments.

Date

August 8, 2017

Sign



**INFORMATION ON OTHER APPOINTMENTS, WHICH COMPENSATION IS PAID FROM PUBLIC FINANCES, AND RELEVANT COMPENSATIONS, AT ANY TITLE**

PURSUANT TO ART. 14 CO. 1 LETT. E) OF D.LGS. N. 33 OF MARCH 14, 2013  
*Timothy F. Billiar*

The undersigned, ..... born in ..... on ..... as Member of the Board of Fondazione Ri.MED pursuant to art. 14 para 1 letter d) of D.Lgs. no. 33 of March 14, 2013, having been informed, that the information below will be published in accordance with and for the purposes set forth in D.Lgs. no. 33/2013,

HEREBY STATES

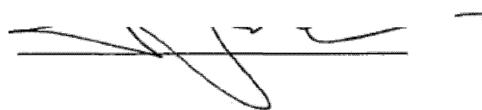
- Not to have any other appointment, which compensation is to be paid from Italian public finances  
 To hold the following appointments, which compensation is to be paid from Italian public finances:

APPOINTMENT	ENTITY	TERM	COMPENSATION
		from _____ to _____	€
		from _____ to _____	€
		from _____ to _____	€
		from _____ to _____	€
		from _____ to _____	€
		from _____ to _____	€
		from _____ to _____	€
		from _____ to _____	€
		from _____ to _____	€
		from _____ to _____	€

Copy of valid passport is attached

Pittsburgh, PA - 2019 01 03

Signature



**BIOGRAPHICAL**

NAME: Timothy R. Billiar, MD

HOME ADDRESS:

BUSINESS ADDRESS:

Department of Surgery, Chairman's Office  
F-1281 Presbyterian University Hospital  
200 Lothrop Street  
Pittsburgh PA 15213

**EDUCATION AND TRAINING**UNDERGRADUATE:

1975 - 1979	Doane College Crete, NE	BA, 1979 Summa Cum Laude	Natural Sciences
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GRADUATE:

1979 - 1983	University of Chicago Pritzker School of Medicine Chicago, IL	MD, 1983	Medicine
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POSTGRADUATE:

1983 - 1984	University of Minnesota Hospitals and Clinics Minneapolis, MN	Intern	Surgery
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1984 - 1986	University of Minnesota Hospitals and Clinics Minneapolis, MN	Resident	Surgery
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1986 - 1987	University of Minnesota Hospitals and Clinics Minneapolis, MN	Research Fellow	Surgery
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1987 - 1990	University of Pittsburgh School of Medicine Pittsburgh, PA	Research Fellow	Surgery
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1990 - 1992	University of Pittsburgh School of Medicine Pittsburgh, PA	Chief Resident	Surgery
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**APPOINTMENTS AND POSITIONS****ACADEMIC:**

1992 - 1994	University of Pittsburgh School of Medicine Pittsburgh, PA	Samuel P. Harbison Assistant Professor of Surgery
1994 - 1997	University of Pittsburgh School of Medicine Pittsburgh, PA	Associate Professor of Surgery
1997 - 1999	University of Pittsburgh School of Medicine Pittsburgh, PA	Watson Professor of Surgery
1999 – Present	University of Pittsburgh School of Medicine Pittsburgh, PA	George Vance Foster Endowed Professor and Chair of Department of Surgery

**NON-ACADEMIC:**

1992 - Present	Presbyterian Shadyside University Hospitals Pittsburgh, PA	General Surgery Staff Physician Trauma Staff Physician
2012 – Present	University of Pittsburgh Physicians	Vice-President and Chief Academic Officer

**CERTIFICATION AND LICENSURE****SPECIALTY CERTIFICATION:**

American Board of Surgery, #38027 Recertification, #38027 Surgical Critical Care Board, #1093	February 1993 November 2012 October 1993
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**MEDICAL LICENSURE:**

Pennsylvania Medical License MD-040947-E February 1988

**MEMBERSHIPS IN PROFESSIONAL AND SCIENTIFIC SOCIETIES**

1988	Society for Leukocyte Biology
1989	American Association for the Advancement of Science
1990	American Federation for Clinical Research
1992	Surgical Infection Society
1992	Association for Academic Surgery
1993	Society of University Surgeons
1994	Shock Society
1994	Surgery Biology Club-I
1995	The Oxygen Society

1995 Society of Critical Care Medicine  
1995 Molecular Medicine Society  
1996 Central Surgical Association  
1996 Fellow of the American College of Surgeons  
1996 Nitric Oxide Society  
1997 American Society of Gene Therapy  
1998 American Society for Clinical Investigation  
1998 American Physiological Society  
1999 American Surgical Association  
2000 International Endotoxin and Innate Immunity Society  
2001 Association for Patient-Oriented Research  
2001 Association for Surgical Education  
2001 American Heart Association  
2002 American Medical Association  
2005 International Surgical Group  
2005 Society of Black Academic Surgeons  
2005 Panamerican Trauma Society  
2006 American Association for the Surgery of Trauma  
2006 Institute of Medicine of the National Academy of Sciences  
2009 James IV Surgical Society

### HONORS

Undergraduate:

1979 Phi Eta Sigma Award (highest graduating GPA undergraduate)

Residency:

1986-1989 National Research Service Awards AM-07866  
1989-1990 DK-07866  
1987-1989 American College of Surgeons Scholarship  
1987, 1989 Surgical Infection Society Resident Research Awards  
1988 Society of Critical Care Medicine Surgical Award  
1988 Doane College Outstanding Alumnus  
July 1989 American College of Surgeons Visiting Scholar  
to the Royal Australian College of Surgeons  
1989-1990 National Foundation for Infectious Disease - Stuart Pharmaceuticals  
Postdoctoral Fellowship in Surgical Infection Research  
1992 Alpha Omega Alpha

Faculty:

1992-1994 Samuel P. Harbison Endowed Assistant Professor of Surgery  
1992-1997 George H.A. Clowes Jr Memorial Research Career Development Award  
of the American College of Surgeons  
1998 Dolph O. Adams Award of the Society for Leukocyte Biology  
1998 American Society of Clinical Investigation  
1997 - 1999 Watson Professor of Surgery  
1999 - present George Vance Foster Professor and Chair  
2002 William S. McEllroy Award, Medical Alumni Association, University of Pittsburgh  
2003-2013 NIH R37 Merit Award

2003-2016	Best Doctors in America
2006	Institute of Medicine of the National Academy of Sciences
2008	Flance-Karl Award (presented by the American Surgical Association)
2011	Distinguished Professor, University of Pittsburgh
2011	Honorary Member Society of Black Academic Surgeons
2011 – present	Guest Professor, Shanghai 6 <sup>th</sup> Peoples Hospital of Jiao Tong University. Shanghai, China
2011 – present	Visiting Professorship. Changzheng Hospital affiliated with the second Military Medical School. Shanghai, China
2011-2016	Visiting Professorship. Central South University. Changsha, China.
2012-2015	Visiting Professorship. Southern Medical University, Guangzhou, China.
2013-2016	Guest Professor. Huazhong University of Science and Technology, Wuhan, China.
2015	American Surgical Association Medallion for Scientific Achievement
2015	Shock Society Scientific Achievement Award
2015-2018	Innovative Global Talent Program Award (1000 Talents Plan), Natural Science of Foundation of China
2016	Distinguished Service Award, University of Chicago

### **PROFESSIONAL ACTIVITIES**

#### **Current Research Funding as Principal Investigator:**

- 1) Director: Training in Trauma and Sepsis Research,  
NIH grant #T32-GM-08516, 7/01/14-6/30/2019, \$1,573,321 total costs
- 2) Principal Investigator: Nitric Oxide and Hepatic Function in Sepsis and Trauma  
NIH Center Grant #R01-GM-044100, 5/01/14-3/31/2018, \$1,194,383 total costs
- 3) Principal Investigator: Function and Regulation of Endotoxin Signaling in Surgical Sepsis  
NIH Grant # R01-GM-50441, 4/1/16-6/30/20, \$220,000 direct cost per year.
- 4) Co-PI: Immunometabolism in Sepsis  
NIH grant #R01GM115366-01, 7/1/15-6/30/20 (PI: Daolin Tang, Ph.D)
- 5) Co-Investigator: Regulation of LPS-mediated HMGB1 Release by Poly (ADP-ribose) Polymerase-1  
NIH grant #R01-GM098474, 4/1/12-3/31/17 (PI: Raj Aneja, MD)
- 6) Co-Investigator: Caspase-1 and inflammasome activation in trauma/hemorrhagic shock  
NIH/NIGMS grant #R01-GM-102146, 7/1/12-6/30/17 (PI: Melanie Scott, MD, PhD)
- 7) Co-Investigator: Endogenous regulators of inflammation in liver ischemia/reperfusion  
NIH/NIGMS grant # R01GM095566, 9/15/11 – 5/30/16 (PI: Allan Tsung, MD)
- 8) Co-Investigator: WISP1 and TLR4 Signaling in ventilator-induced lung injury (VILI)  
NIH grant #R01GM108639, 7/1/14- 6/30/19 (PI: Liming Zhang, MD, PhD)
- 9) Co-Investigator: A Novel Regulation of the Phase II Enzyme Estrogen Sulfotransferase  
NIH grant # R01ES023438, 8/1/14-4/30/19 (PI: Wen Xie, PhD)

Patents:

US Patent No. 5,468,630  
US Patent No. 5,658,565  
US Patent No. 5,714,511  
US Patent No. 5,830,461  
US Patent No. 5,882,908  
US Patent No. 6,103,230  
US Patent No. 6,424,804 (4,043,351)

**SEMINARS/INVITED LECTURES**

1. The Extraction of Soluble Human Hair Proteins and Their Separation by Electrophoretic Methods. 89th Meeting of the Nebraska Academy of Sciences. Lincoln, NE. April 1979.
2. Small Bowel Transplantation in the Rat. Senior Scientific Session, University of Chicago. Chicago, IL. May 1983.
3. Maltose Absorption as an Indicator of Small Intestinal Allograft Rejection. Annual Meeting of the Association for Academic Surgery. Syracuse, NY. November 1983.
4. Comparative Evaluation of Autologous Smooth Muscle Wraps, Nipple Valves and Antiperistaltic Exit Conduits for Ileostomy Continence. Annual Meeting of the Society of University Surgeons (Residents' Conference). Boston, MA. February 1985.
5. Splenectomy Alters Kupffer Cell Response to Endotoxin. Surgical Infection Society. Philadelphia, PA. May 1987.
6. The Role of Intestinal Flora in the Maintenance and Modulation of Kupffer Cell Populations. Annual Meeting of the Association for Academic Surgery. Orlando, FL. November 1987.
7. Diets High in Fish Oil Result in Suppressed Kupffer Cell Prostanoid Production While Preserving IL-1 Release in Response to Endotoxin. Annual Meeting of the Society of University Surgeons. San Antonio, TX. February 1988.
8. Portal Factors Maintain and Modulate Kupffer Cell Response to Endotoxin. Annual Meeting of the American Surgical Association. San Francisco, CA. May, 1988.
9.  $N^G$ -Monomethyl-L-Arginine Blocks Kupffer Cell Inhibition of Hepatocyte Protein Synthesis But Not TNF or IL-1Release in Response to LPS. Annual Meeting of the Society for Leukocyte Biology. Washington DC. October 1988.
10. Modulation of Kupffer Cell Prostaglandin E2 Production and Intracellular Calcium Response to Platelet-Activating Factor and Endotoxin by Dietary n-3 Polyunsaturated Fatty Acids. Annual Meeting of the Association for Academic Surgery. Salt Lake City, UT. November 1988.
11. Kupffer Cell: Hepatocyte Coculture: A Model of Cell-Cell Interaction in Sepsis. Louisiana State University, Department of Physiology Distinguished Lecture Series. New Orleans, LA. January 1989.

12. Endotoxin-Activated Kupffer Cells Release Reactive Nitrogen Intermediates That Inhibit Hepatocyte Protein Synthesis. Annual Meeting of the Society of University Surgeons. Baltimore, MD. February 1989.
13. Toxic L-Arginine Metabolites Produced by Endotoxin-Activated Kupffer Cells Induce Hepatocyte Death. Annual Meeting of the Surgical Infection Society. Denver, CO. April 1989.
14. Liver Cells Produce Nitrogen Oxides from L-Arginine in Response to Septic Stimuli. Royal Australasian College of Surgeons Registrars Paper Day. Sydney, NSW Australia. July 1989.
15. Inhibition of L-Arginine Metabolism *In Vivo* with NG Monomethyl-L-Arginine Promotes LPS-Induced Hepatic Damage. Nitric Oxide from L-Arginine: A Bio regulatory System. The Royal Society, London, England. September 1989.
16. The Role of Nitric Oxide in the Septic Liver. University of Minnesota Infectious Disease Seminar. Minneapolis, MN. October 1989.
17. Kupffer Cell and Hepatocyte Interactions. Advances in Nutritional Pharmacology. Snowbird, UT. January 1990.
18. Nitric Oxide from L-arginine: A Novel Mediator in Biology and Trauma. Johns Hopkins 1st International Seminar on the Biology of Injury. Baltimore, MD. May 1990.
19. *In Vivo* Induction of Nitric Oxide Production by Liver Cells. American College of Surgeons. San Francisco, CA. October 1990.
20. The Effects of Kupffer Cells on Hepatocyte Fatty Acid Uptake and Utilization. Annual Meeting of the Association for Academic Surgery. Houston, TX. November 1990.
21. Nitric Oxide: Friend or Foe. Merck Sharp & Dohme Surgery Faculty Meeting. Laguna Nigel, CA. March 1991.
22. Kupffer Cells Provide the IL-6 Signal to Hepatocytes for the Induction of the Acute Phase Response in Endotoxemia but Not Localized Remote Inflammation. Annual Meeting of the Surgical Infection Society. Ft. Lauderdale, FL. April 1991.
23. Nitric Oxide: A Novel Biologic Mediator. Medicine in the 21st Century Conference. Anahuac University, Mexico City, Mexico. May 1991.
24. Hepatocyte Nitric Oxide Production. FASEB Summer Research Conference. Copper Mountain, CO. July 1991.
25. Increased Circulating Nitrogen Oxides after Human Tumor Immunotherapy Correlate with Toxic Hemodynamic Changes. The Biology of Nitric Oxide Seminar. London, England. October 1991.
26. Nitric Oxide: Friend or Foe? Critical Care Grand Rounds, Johns Hopkins Medical School. Baltimore, MD. May 1992.

27. The Role of Kupffer Cell: Hepatocyte Interactions in Sepsis. Lister Rounds, Toronto General Hospital. Toronto, Canada. October 1992.
28. What the Surgeon Needs to Know About Nitric Oxide. Surgical Grand Rounds, University of Toronto. Toronto, Canada. October 1992.
29. The Integration of Functional, Molecular, and Biochemical Aspects of Hepatic Nitric Oxide Synthesis. Institute Scientifique Roussel. Paris, France. April 1993.
30. Regulation of Nitric Oxide Production in the Liver. Nitric Oxide in Health and Disease Conference, Rutgers University. Newark, NJ. June 1993.
31. From Rodents to Humans: Characterization of Hepatic Inducible Nitric Oxide Synthase. Nitric Oxide: Molecular Mechanisms of Synthesis and Action. The Banbury Center, Cold Spring Harbor Laboratory. Cold Spring Harbor, NY. November 1993.
32. Nitric Oxide in Sepsis. Sepsis Symposium, Harborview Medical Center. Seattle, WA. November 1993.
33. Sepsis, Hepatic Inflammation, and Inducible Nitric Oxide Synthesis. The American Society of Hematology. St. Louis, MO. December 1993.
34. The Answer: Nitric Oxide. The Question: What Do Surgical Sepsis and Penile Erection Have In Common? Grand Rounds, University of Minnesota. Minneapolis, MN. January 1994.
35. Arginine Metabolism, Arginine Biosynthesis, and Inducible Nitric Oxide Synthase. American Society for Parenteral and Enteral Nutrition Research Workshop Symposium. San Antonio, TX. January 1994.
36. Futuristic Surgical Approaches in the ICU. Society of Critical Care Medicine, 23rd Educational and Scientific Symposium. Orlando, FL. February 1994.
37. The Regulation and Function of Inducible Nitric Oxide Synthase in the Liver. Seminar in the Department of Pharmacology, Tulane University Medical Center. New Orleans, LA. February 1994.
38. Chemically-Induced Hepatic Injury: The Interplay Between Inflammatory Cells, Cytokines, and Inducible Nitric Oxide Synthase. 33rd Annual Meeting of the Society of Toxicology. Dallas, TX. March 1994.
39. Sepsis, the Liver, and Human Inducible NO Synthase. IBC Conference on Nitric Oxide. Philadelphia, PA. March 1994.
40. The Regulation of Inducible NO Synthase in the Liver and its Role in Sepsis and Inflammation. FASEB Summer Conference on Endothelial Cell Function. Copper Mountain, CO. June 1994.
41. The Beneficial Roles of Inducible NO in the Liver in Acute Inflammation. Biochemistry and Molecular Biology of Nitric Oxide International Conference. Los Angeles, CA. July 1994.
42. Nitric Oxide and Septic Shock. Harborview Medical Center Conference - Hot Issues in Infectious Disease. Carmel, CA. July 1994.

43. Inhibition of Nitric Oxide Synthase is Important in Maintaining Hemodynamic Stability in Sepsis. Controversies in the Management of Surgical Infection, American College of Surgeons Meeting. Chicago, IL. October 1994.
44. Nitric Oxide - The Molecule of the Year, 1992. Mediators of Host Responses, American College of Surgeons Meeting. Chicago, IL. October 1994.
45. Oxygen Radicals and Nitric Oxide: the Yin and Yang of Endotoxin Shock. 7th Grover Conference on the Pulmonary Circulation Meeting. Sedalia, CO. October 1994.
46. NO as a Mediator in Sepsis: Sepsis and the Inflammatory Response. American College of Chest Physicians Meeting. New Orleans, LA. October 1994.
47. Nitric Oxide in Inflammation. UMDNJ Graduate School of Biomedical Sciences Course Schedule, Cell Biology of the Host Response to Injury. Newark, NJ. February 1995.
48. NO and Hepatocytes. Role of Nitric Oxide in Sepsis and ARDS. Round Table Conference by the European Society of Intensive Care Medicine. Brussels, Belgium. March 1995.
49. Influence of Nitric Oxide on Cellular Metabolism. 15th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium. March 1995.
50. Nitric Oxide and Guanylate Cyclase. Graduate Pharmacology Course Series, Receptors and Signal Transduction Conference, University of Pittsburgh. Pittsburgh, PA. March 1995.
51. New Insights into the Regulation of Human Inducible Nitric Oxide Synthase. Human Inducible NOS and Nitric Oxide Signaling Pathways. The New York Academy of Sciences. New York, NY. April 1995.
52. Discovery of the Sepsis Gene. General Surgery Grand Rounds, University of Pittsburgh Medical Center. Pittsburgh, PA. May 1995.
53. New Insights into the Regulation and Function of Inducible NO Synthase. National Cancer Institute, National Institutes of Health. Bethesda, MD. May 1995.
54. Nitric Oxide in Inflammatory States: How Much is Too Much of a Good Thing? American Thoracic Society International Conference. Seattle, WA. May 1995.
55. Inducible NO Synthase and the Liver. Liver Research Center Seminar, Albert Einstein College of Medicine. Bronx, NY. May 1995.
56. NO and Hepatic Function. American Association for the Study of Liver Diseases: Oxidant Stress and Liver Disease. Airlie, VA. June, 1995.
57. The Effects of Nitric Oxide and Endotoxin on Hepatic Protein Synthesis and Liver Metabolism. Regulation in Metabolism Group Colloquium on Endotoxic Shock and Metabolism, Biochemical Society Meeting, University of Manchester. Manchester, UK. July 1995.
58. Adaptive Roles of Inducible NO Synthase in Acute Inflammation. 23rd Meeting of the Federation of European Biochemical Societies. Basel, Switzerland. August 1995.

59. The Discovery of the Sepsis Gene. Surgical Grand Rounds, York Hospital. York, PA. September 1995.
60. Regulation and Function of Human Inducible Nitric Oxide in the Liver. Department of Physiology, Jefferson Medical College. Philadelphia, PA. September 1995.
61. Toward Design of a Liver-Specific Nitric Oxide Donor. 4th International Meeting on the Biology of Nitric Oxide. Amelia Island, FL. September 1995.
62. Sepsis and Endotoxemia -- New Therapeutic Approaches. 3rd International Shock Congress. Hamamatsu, Japan. October 1995.
63. Nitric Oxide: Friend or Foe? Metabolic Support For Perennial Problems in Surgery. 81st Annual Clinical Congress, American College of Surgeons. New Orleans, LA. October 1995.
64. Bridging Basic Science and Liver Disease. 5th Annual Irwin M. Arias, MD, Symposium, American Liver Foundation. Boston, MA. November 1995.
65. Inducible NO Synthase in the Gut-Liver Axis in Sepsis. 2nd International Autumnal Thematic Meeting on Sepsis. Deauville, France. November 1995.
66. Nitric Oxide: Friend or Foe? 68th Scientific Session, American Heart Association. Anaheim, CA. November 1995.
67. Surgical Research: Connecting the Dots. General Surgery Grand Rounds, University of Pittsburgh Medical Center. Pittsburgh, PA. December 1995.
68. Longitudinal Perspective on the Molecule of the Year 1995. Critical Care Medicine Grand Rounds, University of Pittsburgh Medical Center. Pittsburgh, PA. January 1996.
69. Gene Transfer Studies Using Human Inducible Nitric Oxide Synthase. Pfizer Central Research. Groton, CT. February 1996.
70. Nitric Oxide and Guanylate Cyclase. Graduate Pharmacology Course Series, Department of Pharmacology, University of Pittsburgh School of Medicine. Pittsburgh, PA. February 1996.
71. Mesenteric Ischemia. Department of Medicine Grand Rounds, University of Pittsburgh Medical Center. Pittsburgh, PA. March 1996.
72. iNOS Overexpression to Modify Disease States. 1996 Research Initiatives in Vascular Disease Conference, International Society for Cardiovascular Surgery. Bethesda, MD. March 1996.
73. NO and Hepatic Inflammation. Canadian Digestive Disease Week, 35th Annual Meeting of the Canadian Association of Gastroenterology. Lake Louise, Alberta Canada. March 1996.
74. Nitric Oxide Synthesis in Severe Sepsis. 16th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium. March 1996.

75. Human iNOS Gene Transfer: Requirements, Consequences, and Potential Therapeutic Applications. IBC Nitric Oxide Conference. Philadelphia, PA. March 1996.
76. Regulation of Expression of Human Hepatic Nitric Oxide. Experimental Biology '96. Washington DC. April 1996.
77. Regulation and Actions of Nitric Oxide in Liver Cells. Pharmacology Seminar, Department of Molecular and Medical Pharmacology, UCLA School of Medicine. Los Angeles, CA. May 1996.
78. Nitric Oxide: A Pluripotent Mediator in Shock. 19th Annual Conference on Shock. Grand Traverse Village, MI. June 1996.
79. Regulation of Inducible NO Synthase. Royal Society of Medicine Conference: Nitric Oxide and Its Clinical Implications. London, England. June 1996.
80. Cytokines, Nitric Oxide, and The Liver. Liver Microcirculation in Health and Disease -- American Association for the Study of Liver Diseases Symposium. Reston, VA. June 1996.
81. Gene Transfer of the Human Inducible NO Synthase: Requirements and Consequences. 2nd International Conference on the Biochemistry and Molecular Biology of Nitric Oxide. Sunset Village, CA. July 1996.
82. Nitric Oxide, Necrosis, and Apoptosis in the Liver. Second International Paraelios Symposium; Nitric Oxide and the Cell: Proliferation, Differentiation, and Death. University of Reggio Calabria, Faculty of Pharmacy; Calabria, Italy. September 1996.
83. Gene Transfer Studies Using the Human Inducible NO Synthase. Surgery Biology Club. San Francisco, CA. October 1996.
84. Trauma and Hypovolaemic Shock. Eleventh International Postgraduate Course on Critical Care Medicine. Trieste, Italy. November 1996.
85. Gene Therapy Studies Using the Human Inducible NO Synthase. Molecular and Cardiovascular Research Conference, Case Western Reserve University. Cleveland, OH. January 1997.
86. Nitric Oxide in Inflammation. Cell Biology of the Host Response to Injury, University of Medicine and Dentistry of New Jersey. Newark, NJ. January 1997.
87. Cytoprotective Actions of Nitric Oxide in the Liver: NO Inhibits Hepatocyte Apoptosis. 4th International Congress on the Immune Consequences of Trauma, Shock, and Sepsis -- Mechanisms and Therapeutic Approached. Munich, Germany. March 1997.
88. Anti-Apoptotic Actions of NO in the Liver. Society of Parenteral Alimentation. Amelia Island, FL. March 1997.
89. Nitric Oxide: From Bench to Bedside. Surgical Grand Rounds, North Shore University Hospital. Manhasset, NY. March 1997.
90. The Liver in Sepsis. Shock -- Mechanisms and Prospects for Management, Royal College of Physicians of London. London, UK. April 1997.

91. Gene Transfer of Human iNOS. JBC's Sixth Annual Conference on Nitric Oxide. Philadelphia, PA. May, 1997.
92. Gene Therapy. IV International Meeting on Nitric Oxide Actions. Cordoba, Spain. May 1997.
93. Nitric Oxide: From Bench To Bedside. Institute of Molecular Medicine and Genetics Seminar Series. Medical College of Georgia, Augusta, GA. May 1997.
94. Nitric Oxide. Gordon Conference on Wound Repair. Colby-Sawyer College, New London, NH. June 1997.
95. The Cytoprotective and Anti-Apoptotic Actions of Nitric Oxide in the Liver. BASF Research Corporation. Worcester, MA. June 1997.
96. Vascular Gene Transfer Using Human iNOS to Modify Disease States. FASEB Summer Research Conference on Endothelium and Cardiovascular Control. Copper Mountain, CO. July 1997.
97. Reactive Species - Cytokine Interactions in Vasoproliferative Disorders. Mechanisms of Proliferative and Obliterative Vascular Diseases: Insights From the Pulmonary and Systemic Circulations. National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, MD. September 1997.
98. Unraveling the Nitric Oxide Paradox in Inflammation-Induced Tissue Damage. The Second International Meeting on Oxygen/Nitrogen Radicals and Cellular Injury, North Carolina State University. Durham, NC. September 1997.
99. Unraveling the Roles of Nitric Oxide in Tissue Injury in Acute Inflammatory Reactions. Second Immunology Research Group Conference. Calgary Alberta, Canada. September 1997.
100. iNOS Gene Therapy Reverses Deficient Wound Repair in iNOS Knockout Mice. 5th International Conference on the Biology of Nitric Oxide. Kyoto, Japan. September 1997.
101. Cardiovascular Gene Therapy Using Human iNOS. Tokyo Women's Medical College. Tokyo, Japan. September 1997.
102. NO As A Drug. Department of Pharmacology Seminar, University of Pittsburgh School of Medicine. Pittsburgh, PA. October 1997.
103. The Cytoprotective Actions of Nitric Oxide in the Liver. 6th Vienna Shock Forum. Vienna, Austria. November 1997.
104. The Consequences of NO Synthase Inhibition in the Liver During Sepsis and Shock. 6th Wiggers Bernard Conference on Nitric Oxide and Its Inhibition in Shock, Sepsis, and Organ Failure. Vienna, Austria. November 1997.
105. Cytoprotective Effects of Nitric Oxide. Society of Critical Care Medicine 27th Educational and Scientific Symposium. San Antonio, TX. February 1998.
106. Inducible NO Synthase: When to Inhibit and When to Increase. Institute for Environmental Medicine, University of Pennsylvania School of Medicine. Philadelphia, PA. March 1998.

107. Surgeons and Translational Research: A Two-Way Street With No Speed Limit. George H.A. Clowes Visiting Professor in Surgical Research, Beth Israel Deaconess Medical Center. Boston, MA. March 1998.
108. NO Regulation of Caspase-3 in Hepatocytes. Experimental Biology '98 (FASEB). San Francisco, CA. April 1998.
109. The Diffusion of Nitric Oxide from the Bench to the Bedside. Inaugural Lecture, Watson Professorship, University of Pittsburgh. Pittsburgh, PA. April 1998.
110. Nitric Oxide is a Potent Inhibitor of Apoptosis in the Liver. Juan March Foundation Workshop, "NO: From Discovery to Clinic." Madrid, Spain. June 1998.
111. Gene Therapy Using Human Inducible NO Synthase to Prevent Intimal Hyperplasia. Juan March Foundation Workshop, "NO: From Discovery to Clinic." Madrid, Spain. June 1998.
112. The Role of iNOS in Acute Inflammation. The Fifth International Conference of the Endotoxin Society. Santé Fe, NM. September 1998.
113. Role of Induced Nitric Oxide in Hemorrhage. Conference on Resuscitation Fluid Design and Resuscitation Protocols for Combat Casualties, Institute of Medicine, National Academy of Sciences. Washington DC. September 1998.
114. Nitric Oxide: What The Surgeon Should Know. Postgraduate Course: Management of Infection in the Surgical Patient, American College of Surgeons 84th Annual Clinical Congress. Orlando FL, October 1998.
115. Development of Knockouts in Inflammation Research. Postgraduate Course: Molecular Biology for Surgeons - A Primer, American College of Surgeons 84th Annual Clinical Congress. Orlando FL, October 1998.
116. NO: A Novel Inhibitor of TNF-Induced Apoptosis. Surgery Biology Club I, American College of Surgeons 84th Annual Clinical Congress. Orlando FL, October 1998.
117. We're Looking for a Few Good Marines/Engineers/Artists. General Surgery Grand Rounds, University of Pittsburgh School of Medicine. Pittsburgh PA, December 1998.
118. The Many Roles of iNOS in Biology. Children's Hospital of Pittsburgh, Allergy and Immunology Lecture Series. Pittsburgh PA, December 1998.
119. Cytoprotective Actions of Nitric Oxide in Endotoxemia: Nitric Oxide Inhibits TNF-Mediated Toxicity in Liver Cells. IBC's 8th Annual Conference on Sepsis, Endotoxemia and Related Problems. Baltimore, MD. January 1999.
120. Hemorrhagic Shock: Clinical Experimental Updates -- Novel Pharmacologic Treatments of Hemorrhagic Shock. 28th Educational & Scientific Symposium. San Francisco, CA. January 1999.
121. The Role of NO in Inflammation. New Jersey Medical School Graduate Course, "Cell Biology of the Host Response to Injury." Newark, NJ. February 1999.
122. iNOS Overexpression and Intimal Hyperplasia. 1999 Lifeline Foundation Research Initiatives Conference. Bethesda, MD. March 1999.

123. Mechanisms of Shock-Induced Inflammation. 19th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium. March 1999.
124. Cytoprotective Mechanisms Against TNF Toxicity. 19th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium. March 1999.
125. Inducible Nitric Oxide Synthase Gene Transfer to Limit Transplantation. Experimental Biology '99. Washington DC. April 1999.
126. iNOS: From Cloning to Therapeutic Applications. The Molecular Surgeon One Day Symposium. Houston, TX. August 1999.
127. Nitric Oxide and Apoptosis. The Wallenberg Symposium on the Role of Nitric Oxide in Inflammation and Host Defense: From Basic Science to Clinical Practice. Stockholm, Sweden. September 1999.
128. Endothelial Nitric Oxide Synthase Protects Allografts from Transplant Vasculopathy. The 33<sup>rd</sup> Annual Meeting of the Association for Academic Surgery. Philadelphia, PA. November, 1999.
129. Nitric Oxide Modulation of Apoptosis. The Japan-US Cooperative Cancer Research Program Seminar. Nara, Japan. December 1999.
130. Injury as an Illness. General Surgery Grand Rounds. University of Pittsburgh School of Medicine. Pittsburgh, PA. January 8, 2000.
131. Gene Therapy to Limit Intimal Hyperplasia. University of Cincinnati Medical Center. Cincinnati, OH. January, 2000.
132. Cellular and Molecular Mechanisms of Inflammation (Moderator) Role of Nitric Oxide in Inflammation. Society of Critical Care Medicine 29<sup>th</sup> Educational and Scientific Symposium. Orlando, FL. February, 2000.
133. Nitric Oxide Synthase Gene Therapy. Midwinter Meeting of the Association for Research in Otolaryngology. St. Petersburg Beach, FL. February, 2000.
134. iNOS Upregulate Inflammation in Hemorrhagic Shock. 5<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis – Pathophysiology, Immune Consequences and Therapy. Munich, Germany. February, 2000.
135. NO Regulation of Cytokine Expression. 5<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis – Pathophysiology, Immune Consequences and Therapy. Munich, Germany. February, 2000.
136. The Anti-Apoptotic Mechanisms in Hepatocytes in Sepsis and Shock. 5<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis – Pathophysiology, Immune Consequences and Therapy. Munich, Germany. February, 2000.
137. Nitric Oxide. 5<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis – Pathophysiology, Immune Consequences and Therapy. Munich, Germany. February, 2000.
138. Clinical Application of Genetic Reengineering. 5<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis – Pathophysiology, Immune Consequences and Therapy. Munich, Germany. February, 2000.

139. Injury as an Illness. 16<sup>th</sup> Annual MSU Surgery-Research Forum. University Club of Michigan State University. East Lansing, MI. March, 2000.
140. Injury as an Illness. Anesthesiology/Critical Care Medicine Grand Rounds. University of Pittsburgh Medical Center. Pittsburgh, PA. March, 2000.
141. Actions of iNOS in Trauma, Hemorrhagic Shock and Ischemia/Reperfusion. Louisiana State University Medical Center, Department of Physiology. Shreveport, LA. April, 2000.
142. Nitric Oxide as an Inhibitor of Apoptosis. Department of Pathology, University of Pittsburgh. Pittsburgh, PA. April, 2000.
143. A New Model for Recognizing and Rewarding the Educational Accomplishments of Surgery Faculty. Minnesota Chapter of the American College of Surgeons. Minneapolis, MN. May, 2000.
144. iNOS Over-Expression to Modify the Vascular Injury Response. Department of Physiology, New York Medical College Grand Rounds. New York, NY. May, 2000.
145. What the Surgeon Should Know About Nitric Oxide. Albert Einstein College of Medicine/Montefiore Medical Center Surgical Grand Rounds. Bronx, NY. May, 2000.
146. Inducible NO Synthase Gene Therapy to Limit Intimal Hyperplasia: Efficacy and Mechanism. 1st International Conference of Biology, Chemistry and Therapeutic Applications of Nitric Oxide. San Francisco, CA. June, 2000.
147. Nitric Oxide: Implications for Therapeutic Breakthroughs. Gene Transfer and iNOS. 7th World Conference on Clinical Pharmacology and Therapeutics and 4<sup>th</sup> Congress of the European Association for Clinical Pharmacology and Therapeutics. Florence, Italy. July, 2000.
148. The Expression of Endotoxin Recognition Molecules by Liver Cells. International Endotoxin Society, Institute Pasteur. Paris, France. August, 2000.
149. The Role of iNOS in the Injury Response. Wound Healing Seminar. Smith-Kline-Beecham. Philadelphia, PA. August, 2000.
150. The Anti-Apoptotic Actions of NO. American Association for Cancer Research. Vail, CO. September, 2000.
151. Inflammatory Mediators Post-Injury. Central American Surgical Congress/Pan American Trauma Meeting. Panama City, Panama. November, 2000.
152. Mediators at the Vascular Lesion. Central American Surgical Congress/Pan American Trauma Meeting. Panama City, Panama. November, 2000.
153. Role of Nitric Oxide in Sepsis and Shock. 7<sup>th</sup> Annual Meeting of the Oxygen Society. San Diego, CA. November, 2000.

154. Nitric Oxide Regulation of Apoptosis. British Society for Immunology Congress 2000. Harrogate, UK. December, 2000.
155. Presidential Address: Routine Complexity. 62<sup>nd</sup> Annual Meeting of the Society of University Surgeons, Chicago, IL. February, 2001.
156. iNOS Overexpression Following Acute Vascular Injury. Experimental Biology 2001, ASPET Symposium. Orlando, FL. March, 2001.
157. Gene Therapy to Limit the Occlusive Complications of Cardiovascular Surgery. 101<sup>st</sup> Annual Congress of Japan Surgical Society. Sendai, Japan. April, 2001.
158. Nitric Oxide Synthase Gene Therapy. Radiation Research Society. San Juan, PR. April, 2001.
159. Injury as an Illness. 2001 Moses Gunn Annual Research Conference. Department of Surgery, University of Michigan. Ann Arbor, MI. May, 2001
160. Tissue Protection by Nitric Oxide. ISN Forefront Meeting. St. John's College, Cambridge, UK. August, 2001.
161. What Regulates Inflammation and Shock? Surgical Biology Club, 87th Annual Clinical Congress of the American College of Surgeons. New Orleans, LA. October, 2001.
162. Understanding the Illness Caused by Injury. The Donald Guthrie Visiting Professor Program, Robert Packer Hospital. Sayre, PA. October, 2001.
163. Nitric Oxide in Trauma Patients. Surgical Grand Rounds, Robert Packer Hospital. Sayre, PA. October, 2001.
164. Understanding the Illness Caused by Injury. Grand Rounds, University of Texas Medical School. Houston, TX. January, 2002.
165. Understanding the Illness Caused by Injury. Grand Rounds, Robert Wood Johnson Medical School. New Brunswick, NJ. March, 2002.
166. INOS Overexpression Moieties the Vascular Injury Response. 2002 Keystone Symposia. Steamboat Springs, CO. April, 2002.
167. The Roles of Nitric Oxide in Shock and Ischemia/Reperfusion. 29<sup>th</sup> Annual Meeting of Japanese Society of Anesthesiologists. Fukuoka, Japan. April, 2002.
168. Understanding the Illness Caused by Injury. Wade Trauma Lecture, New York Presbyterian University Hospital. New York, NY. May, 2002.
169. Nitric Oxide Formation and Signaling in Liver Cells. The Henry M. and Lillian Stratton Basic Research STC: Human Liver Cells in Biomedical Research. Warrenton, VA. June, 2002.
170. Human iNOS: from Cloning to Therapeutic Application. NO Mini-Symposium, University of Montreal. Montréal, Québec. June, 2002.

171. Nitric Oxide and Cellular Stress. 17<sup>th</sup> Aspen Cancer Conference: Mechanisms of Toxicity, Carcinogenesis, Cancer Prevention and Cancer Therapy. Aspen, CO. July, 2002.
172. The Inflammatory Response Caused by Injury. Children's Hospital of Pittsburgh Pediatric Grand Rounds. Pittsburgh, PA. September, 2002.
173. Nitric Oxide, the Liver and Apoptosis. 2002 American Association for the Study of Liver Diseases (AASLD) Single Topic Research Symposium. Boston, MA. November, 2002.
174. NO and Vascular Injury. American Society of Nephrology's Renal Week Conference. Philadelphia, PA. November, 2002.
175. Understanding the Illness Caused by Injury. Grand Rounds, Baylor College of Medicine. Houston, TX. December, 2002.
176. The Role of NO in Inflammation. New Jersey Medical School Graduate Course, "Cell Biology of the Host Response to Injury." Newark, NJ. March, 2003.
177. Nitric Oxide and Apoptosis. 20<sup>th</sup> International Kumamoto Medical Bioscience Symposium. Kumamoto, Japan. May, 2003.
178. Nitric Oxide Synthase Gene Therapy. 3<sup>rd</sup> Annual Meeting of Nitric Oxide Society of Japan. Kumamoto, Japan. May, 2003.
179. Cellular De/activation, Apoptosis: Responses to Ischemia, Hemorrhage and Trauma. NIH and DoD Working Group on Trauma Research. Walter Reed Army Institute of Research. Washington, DC. July, 2003.
180. Nitric Oxide: A Story of Life and Death. University of Illinois College of Medicine. Chicago, IL August, 2003.
181. The Anti-Apoptotic Actions of NO in the Liver. 1st Joint French-German NO Meeting. Strasbourg, France. October, 2003.
182. Understanding the Illness Caused by Injury. Advances in Inflammation Research Symposium. Rhode Island Hospital/Brown University. Providence, RI. October, 2003.
183. How Do Organs Adapt to and Defend Against Hypoxia? American Heart Association Scientific Sessions 2003. Orlando, FL. November, 2003.
184. Challenges to Training Academic Surgeons in the Era of Surgical Tracking and the 80-Hour Work-Week. Association for Academic Surgery. Sacramento, CA. November, 2003.
185. Nitric Oxide in the Liver: A Story of Life and Death. Endocrinology Division Research Conference. University of Pittsburgh. Pittsburgh, PA. January, 2004.
186. Nitric Oxide in the Liver: A Story of Life and Death. Experimental Biology. Washington, DC. April, 2004.

187. Nitric Oxide in the Liver: A Story of Life and Death. University of Chicago Research Conference. Chicago, IL. April, 2004.
188. Nitric Oxide Induces Differentiation of Embryonic Stem Cells to Cardiac Myocytes. 3<sup>rd</sup> International Conference on the Biology, Chemistry and Therapeutic Applications of Nitric Oxide. Nara, Japan. May, 2004.
189. Understanding the Illness Caused by Injury. 51<sup>st</sup> Annual Singleton Surgical Society Scientific Program. Galveston, TX. June, 2004.
190. The Role of Danger Signals in Gut and Liver Injury. Surgical Congress. Bonn, Germany. October, 2004.
191. Guidelines for the Management of Sepsis. Sepsis Seminar - PUMC Pharmaceuticals. Beijing, China. November, 2004.
192. Nitric Oxide in Hemorrhagic Shock: Efficiency of a NO Scavenger. Seminar: Novel Therapies for Sepsis. Seoul, Korea. November, 2004.
193. Understanding the Illness Caused by Injury. Complexity in Acute Illness Conference. Pittsburgh, PA. November, 2004.
194. Lessons from a Life in Research: Getting Things Straight. 38<sup>th</sup> Annual Meeting of the American Association for Academic Surgery. Houston, TX. November, 2004.
195. Nitric Oxide and the Liver. Liver Seminar Series. University of Pittsburgh School of Medicine. Pittsburgh, PA. January, 2005.
196. Initiation of Inflammatory Pathways in Hemorrhagic Shock. 11<sup>th</sup> Congress of the European Shock Society. Vienna, Austria. January, 2005.
197. The Role of Nitric Oxide and Carbon Monoxide in Inflammation. University of Medicine & Dentistry of New Jersey, Department of Cell Biology and Molecular Medicine, Newark, NJ. March, 2005.
198. NO, Stem Cells and Cardiomyogenesis. 6<sup>th</sup> Nitric Oxide Gordon Research Conference, Il Ciocco, Barga, Italy. May, 2005.
199. Mechanisms of Organ Injury in Shock and Hepatic/Reperfusion. Istituto Mediterraneo per I Trapianti e Terapie ad altra Specializzazione (IsMeTT), Plaermo, Italy. May, 2005.
200. Where Injury and Infection Intersect: Activation of Innate Immunity. Science 2005: The New Research Ecology. University of Pittsburgh School of Medicine. Pittsburgh, PA. October, 2005.
201. Transition to the R01. Association for Academic Surgery 2005 Fall Courses. 91<sup>st</sup> Annual Clinical Congress of the American College of Surgeons. San Francisco, CA. October, 2005.
202. Danger Theory Applied to Experimental Trauma. Surgical Biology Club I. 91<sup>st</sup> Annual Clinical Congress of the American College of Surgeons. San Francisco, CA. October, 2005.

203. Pittsburgh Surgery and “The University”. Pittsburgh Surgical Society, Pittsburgh, PA. November, 2005.
204. Determinants of Nitric Oxide Toxicity in Liver Cells. Free Radical Research Seminar, Medical College of Wisconsin, Milwaukee, WI. December, 2005.
205. Organ-Specific Mechanisms of Dysfunction: Liver. Round Table Conference on Mechanisms of Sepsis-Induced Organ Dysfunction & Recovery. Brussels, Belgium. March, 2006.
206. Surgical Infection Society, Presidential Address: Making Progress in an Enlightened Era: Opportunities and Obstacles. San Diego, CA. April, 2006.
207. Unique Features of the Death Induced Signaling Complex in Hepatocytes Exposed to TNF. CNIO Cancer Conference on Inflammation and Cancer, Madrid, Spain. May 22 – 24, 2006.
208. Danger Theory: Implications for the Surgical Patient. University of Alabama at Birmingham Grand Rounds. Birmingham, AL. June, 2006.
209. The Determinants of Nitric Oxide Toxicity in Liver Cells. Bioscience 2006. Glasgow, UK. July, 2006.
210. Danger Signaling Applied to Experimental Trauma. 49<sup>th</sup> Annual Meeting of the International Surgical Group. Boston, MA. October, 2006.
211. Mock Study Section. Career Development Program of the AAS. Chicago, IL. October, 2006.
212. Diverse Roles of the NO/cGMP System in Vascular Homeostasis: Regulation of Differentiation, Apoptosis and Vascular Hyperplasia. Semmelweis Symposium: Nitric Oxide and Nitrosative Stress in the Cardiovascular System. Budapest, Hungary. October, 2006.
213. Functional Genomics of the Injury Response. US Army Institute of Surgical Research. Sam Houston, TX. January, 2007.
214. The Danger Within: Insights into the Systemic Inflammatory Response Following Injury. University of Pittsburgh Department of Surgery Grand Rounds. Pittsburgh, PA. January, 2007.
215. iNOS Localization to the Proxisome in Hepatocytes: A Possible Mechanism for Disposal. 7<sup>th</sup> Nitric Oxide Gordon Research Conference. Ventura, CA. February, 2007.
216. TLR4 Signaling is Required for the Systemic Inflammatory Response Following Femur Fracture. 7<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis. Munich, Germany. March 13 – 17, 2007.
217. HMGB1 and Hemorrhagic Shock. 7<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis. Munich, Germany. March 13 – 17, 2007.
218. Early Events in the Host Recognition of Endogenous Danger Signals. 7<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis. Munich, Germany. March 13 – 17, 2007.
219. The Danger Within: Insights into the Systemic Inflammatory Response Following Injury. T32 Visiting Professor for the 2006-2007 University of Florida College of Medicine Grand Rounds. Gainesville, Florida. March 27-28, 2007.

220. Preparing for a Career in Medicine. Doane College. Crete, Nebraska. April 25, 2007.
221. The Danger Within: Insights into the Systemic Inflammatory Response Following Injury. Penn State Milton S. Hershey Medical Center, Department of Surgery. Penn State, Pennsylvania. May 10-11, 2007.
222. Liver Ischemia/Reperfusion as a Paradigm: Connecting Redox Biology to Inflammation and Organ Injury. Free Radicals, Oxidative Stress and Inflammation in Cancer sponsored by the National Cancer Institute/Center for Cancer Research. Bethesda, Maryland. May 15, 2007.
223. Experimental Models Evaluation DAMP's in Trauma and Sepsis. Clinical Immunology Society's Damage Associated Molecular Pattern Molecules Satellite Symposia. San Diego, California. June 7, 2007.
224. The Danger Within: Insights into the Systemic Inflammatory Response Following Injury. Kate & Dr. Harvey Cushing Lecture, North Shore University Hospital, Department of Surgery. Manhasset, New York. June 12, 2007.
225. The Role of TLR4 and HMGB1 in Experimental Models of Trauma. Medimmune, Inc. Gaithersburg, Maryland. July 23, 2007.
226. The Danger Within: Insights into the Systemic Inflammatory Response Following Injury. Thurston R. Adams Lecturer for the University of Maryland Grand Rounds. College Park, MD. October 31, 2007.
227. NO/cGMP Regulation of Cell Death. 1<sup>st</sup> International Conference on Nitric Oxide and Cancer. Paris, France. November 27<sup>th</sup>, 2007.
228. The Danger Within: Insights into the Systemic Inflammatory Response Following Injury. Surgical Grand Rounds at Duke University Medical Center. Durham, NC. February 20<sup>th</sup>, 2008.
229. The Danger Within: Insights into the Systemic Inflammatory Response Following Trauma. Department of Education and Research of Taipei Medical University Hospital. Taipei, Taiwan. April 9<sup>th</sup>, 2008.
230. Mechanisms Leading to Inflammation Induced Injury in Hepatic Ischemia and Reperfusion. The Third Congress of the Chinese Chapter of the International Hepato-Pancreato-Biliary Association. Shanghai, China. April 12<sup>th</sup>, 2008.
231. Inflammatory Pathways Following Ischemia/Reperfusion. Mid-Atlantic NO Interest Group Meeting at Nemacolin. Farmington, PA. May 23<sup>rd</sup>, 2008.
232. The Danger Within: Insights into the Systemic Inflammatory Response Following Injury. University of Iowa Resident Research Day. Iowa City, IA. May 27<sup>th</sup>, 2008.
233. The Danger Within: Insights into the Systemic Inflammatory Response Following Trauma. University of Chicago Scientific Session. Chicago, IL. June 6<sup>th</sup>, 2008.
234. The Danger Within: Insights into the Systemic Inflammatory Response Following Trauma. University of Minnesota 2008 Surgical Alumnus of the Year. Minneapolis, MN. June 10<sup>th</sup>, 2008.
235. The Danger Within: Insights into the Systemic Inflammatory Response Following Trauma. University of Toronto Critical Care Medicine Research Day. Toronto, Ontario. June 23<sup>rd</sup>, 2008.

236. Crisis and damage control: Is critical illness the result of damage containment failure? 2008 International Shock Congress. Cologne, Germany. June 30<sup>th</sup>, 2008.
237. The Danger Within: Insights into the Systemic Inflammatory Response Following Trauma. Creighton University. Omaha, NE. July 21<sup>st</sup>, 2008.
238. Ischemia Reperfusion and DAMPs. The 3<sup>rd</sup> International Damage Associated Molecular Patter Molecules and Alarmins Symposium. Pittsburgh, PA. September 2<sup>nd</sup>, 2008.
239. NO and Life and Death. University of Pittsburgh Science 2008-On Our Watch. Pittsburgh, PA. October 2<sup>nd</sup>, 2008.
240. From Myth to Molecules: A Brief History of Understanding of Bacterial-Host Interactions. Macon Surgical Society. Macon, GA. October 8<sup>th</sup>, 2008.
241. The Danger Within: Insights into the Systemic Inflammatory Response Following Trauma. Mercer University. Macon, GA. October 9<sup>th</sup>, 2008.
242. The Utility of Mouse Models in Injury and Sepsis Research. American College of Surgeons 94<sup>th</sup> Clinical Congress. San Francisco, CA. October 16<sup>th</sup>, 2008.
243. Danger Theory and the Innate Immune Response to Injury. L. W. Edwards Lecture at Vanderbilt University Medical Center. Nashville, TN. October 24<sup>th</sup>, 2008.
244. The Sterile Inflammatory Response in the Liver. 2008 Liver Meeting (AASLD). San Francisco, CA. November 3<sup>rd</sup>, 2008.
245. The Danger Within: Insight into the Systemic Inflammatory Response following Injury. New Jersey Medical School. Newark, NJ. December 5<sup>th</sup>, 2008.
246. The Danger Within: Insight into the Systemic Inflammatory Response following Injury. Korea University Medical Center. Seoul, Korea. January 2009.
247. Role of TLRs in Ischemia-Reperfusion-Induced Inflammation and Injury. Pohang University of Science and Technology (POSTECH). Pohang, Gyeongbuk, Korea. January 2009.
248. The Role of Pattern Recognition Receptors in Injury Induced Inflammation. Department of Bioengineering, Musculoskeletal Research Center, Department of Orthopaedic Surgery and McGowan Institute for Regenerative Medicine Seminar. Pittsburgh, PA. January 29th, 2009.
249. The Danger Within: Insight into the Systemic Inflammatory Response following Injury. National Taiwan University Hospital. Taipei, Taiwan. March 18th, 2009.
250. The Danger Within: Insight into the Systemic Inflammatory Response following Injury. Taipei Veterans General Hospital. Taipei, Taiwan. March 19th, 2009.
251. The Danger Within: Insight into the Systemic Inflammatory Response following Injury. China Medical University Hospital. Taichung, Taiwan. March 20th, 2009.

252. Understanding the Illness Caused by Injury: How Trauma Induces a Systemic Inflammatory Response. Taipei International Convention Center. Taipei, Taiwan. March 22nd, 2009.
253. Lessons from Models of Surgical Injury. 8<sup>th</sup> Annual ISF Colloquium. St. Charles, IL. May 4<sup>th</sup>, 2009.
254. Diverse Roles for TLR4 in Liver Innate Immunity. 2<sup>nd</sup> Liver Symposium. Isparta, Turkey. May 20<sup>th</sup>, 2009.
255. Endogenous Response to Injury. Shock Society Meeting. San Antonio, TX. June 8<sup>th</sup>, 2009.
256. The Role of Toll-Like Receptors in Acute Liver Injury. AASLD Single Topic Symposium. Atlanta, GA Sept. 13, 2009.
257. Toll-Like Receptors in the Systemic Inflammatory Response Following Trauma and Shock. European Shock Society. Lisbon, Portugal. Sept. 26, 2009.
258. The Danger Within: Insights into the Systemic Inflammatory Response Following Injury. Surgical Grand Rounds. SUNY Stony Brook. Stony Brook, NY. Oct. 7, 2009.
259. A Novel Dual Platform Microarray Analysis of the Response to Injury in Mice. Surgical Biology Club. Chicago, IL. Oct. 11, 2009.
260. Inflammation Following Injury: Role of Innate Immunity. Universidad de Sao Paulo. Sao Carlos, Brazil. Nov. 7, 2009.
261. Studies on the Regulation and Function of NO in Liver Cells. Universidad de Sao Paulo. Ribeiro Preto, Brazil. Nov. 10, 2009.
262. Role of TLR's in Regulating the Immuno-inflammatory Response to Injury. International Sepsis Forum. Amsterdam, the Netherlands. Nov. 13, 2009.
263. The Danger Within: Insights into the Systemic Inflammatory Response Following Injury. UCLA Grand Rounds. UCLA. Los Angeles, CA. Dec. 1, 2009.
264. Danger Signaling Applied to Acute Liver Injury. Michigan State University. East Lansing, MI. Jan. 27, 2010.
265. Role of Toll-Like Receptors in Driving the Systemic Inflammatory Response after Injury. 8<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis. Munich, Germany. Mar. 10, 2010.
266. Molecular Mechanisms of Injury. Children's Hospital of Pittsburgh. Pittsburgh, PA. April 29, 2010.
267. Excellence in Translational Research, A Pitt Surgery Tradition "Progress in Translational Trauma Research." Plastic Surgery Grand Rounds. University of Pittsburgh Medical Center. Pittsburgh, PA. May 5, 2010.
268. The Danger Within: Insights into the Systemic Inflammatory Response Following Injury. Ruijin Hospital. Shanghai, China. May 19, 2010.
269. The Danger Within: Insights into the Immuno-inflammatory Response Following Trauma. Nanjing University Medical School. Nanjing, China. May 21, 2010.

270. The Danger Within: Insights into the Immuno-inflammatory Response Following Injury. University of Nebraska. Omaha, NE. June 2, 2010.
271. iNOS Regulates the Immune Response to Injury. 6<sup>th</sup> International Conference of the Biology, Chemistry, and Therapeutic Applications of Nitric Oxide. Kyoto, Japan, June 15, 2010.
272. Immuno-Regulatory Roles of iNOS in the Setting of Trauma. 6<sup>th</sup> International Conference of the Biology, Chemistry, and Therapeutic Applications of Nitric Oxide (NO2010 Kyoto). Kyoto, Japan. June 17, 2010.
273. Current Basic Research in Shock and Trauma. Shock and Trauma Update 2010. Taipei Medical University, Taipei, Taiwan. July 10, 2010.
274. Innate Immune Mechanism in Hepatocytes. Visiting lecture for Chinese, German, American Collaborative Research Center. Wuhan, China. October 15, 2010
275. The PAMP-DAMP Hypothesis and Critical Illness. Visiting Lecture; Tongji Medical School. Shanghai, China. October 18, 2010
276. The PAMP-DAMP Hypothesis and Critical Illness. Visiting Lecture, Pharmacology Department, Second Military Medical University, Shanghai, China. October 19, 2010.
277. The Inflammatory Response following Injury. Shanghai Sixth People's Hospital, Shanghai, China. January 18, 2011
278. Improving Outcomes in Trauma: Opportunities and Obstacles. Visiting Lecture, 70<sup>th</sup> Scientific Meeting of the Taiwan Surgical Association, Taipei Medical University, Taipei City, Taiwan, March 20, 2011.
279. The Immuno-Inflammatory Response to Injury: The Roles for DAMP-Pattern Recognition Receptor Interaction. Seminar, Cornell Medical College. April 4, 2011.
280. Perspectives. Society of Black Academic Surgeons Annual Meeting, April 30, 2011.
281. History of Nitric Oxide in Shock States. Nitrite and Nitrate Pathophysiology and Therapy Conference, Atlanta, GA, May 11, 2011.
282. Mechanisms of Injury Induced Inflammation. American Association of Immunologists Symposium, San Francisco, CA, May 16, 2011.
283. The Tolls of Trauma: Trauma and Regenerative Medicine Symposium. Shanghai Sixth's Peoples Hospital, Shanghai China, September 27, 2011.
284. Injury Induced Inflammation. The 145th Anniversary Celebration of Wuhan Union Hospital. Tongi Hospital Symposium. Wuhan, China. October 29, 2011.
285. Common meeting of the American Surgical Association at The L'Academie Nationale de Chirurgie, Nice, France. November 16, 2011.

286. The Tolls of Trauma; Hechtman Trauma Lecturer in Surgery at the Brigham and Women's Hospital, Boston, MA. March 7, 2012.
287. Molecular Biology of Hemorrhagic Shock. American Thoracic Society 2012. San Francisco, CA Lecture, May 21, 2012.
288. The Tolls of Trauma. University of Wisconsin, Department of Surgery 12<sup>th</sup> Annual Resident Research Day. Wisconsin. May 23, 2012.
289. Cell Specific TLR4 Response to Injury. Shock Society 2012, Miami, Florida. June 9, 2012.
290. DAMPs in Trauma and Sepsis, The Bierhaus Memorial HMGB1 and other DAMPs ThinkTank, Heidelberg, Germany. July 10-12, 2012.
291. The Role of the Surgeon Scientist. Twelfth Meeting of the Chinese Vascular Surgery Society, Changsha, China. September 21, 2012.
292. Cell Type Specific Roles for TLR4 in Sepsis and Trauma, Surgical Biology Club. The Sixtieth Annual Meeting. Chicago, Illinois. September 30, 2012.
293. The Tolls of Trauma. Southern Medical University, Guangzhou, China. November 14, 2012.
294. The Role of Danger Associated Molecular Pattern Molecules Toll-Like Receptors In The Injury Response, Sun Yat-sen University (SYSU) Guangzhou, China. November 15, 2012.
295. The Tolls of Trauma. Xiangya Third Hospital Changsha, China. November 16, 2012.
296. Perspective: The Role of Surgeon Scientist. Grand Rounds, Department of Surgery, University of Pittsburgh, Pittsburgh, PA. December 8, 2012.
297. Cell-type Selective Roles of HMGB1 in liver. University of Hawaii Cancer Center. 5<sup>th</sup> Translational Research Symposium. Honolulu, Hawaii. February 25, 2013.
298. Drivers of the Inflammatory Response following Injury. Union Hospital Symposium. Wuhan, China. February 28, 2013.
299. Regulation of the Immuno-inflammatory Response to Injury. The Chinese Shock Society. Guangzhou, China. March 2, 2013.
300. Sensing tissue damage and ischemia through toll like receptors. American Transplant Congress. Seattle, Washington. May 18-22, 2013.
301. The Tolls of Trauma. Pathology Research Day/Retreat University of Pittsburgh. Pittsburgh, PA. May 22, 2013.
302. The Tolls of Trauma. P50 Trauma Research Conference. University of Pennsylvania. Philadelphia, PA. May 24, 2013.

303. An Iterative Strategy to Study Complex Human Diseases. Shanghai Jiao Tong University Symposium on Diabetes Research – Diabetes and Vascular Disease. Sixth People's Hospital. Shanghai, China. June 29 2013.
304. General Surgery Training in the United States. Minimally Invasive Surgery Symposium. Union Hospital Wuhan, China. October 12, 2013.
305. Innate Immune Mechanisms of Sensing Ischemia and Tissue Trauma. Symposium: Academia Sinica. Taipei, Taiwan. October 16, 2013.
306. The Role of Toll-like Receptors in Sensing Tissue Ischemia. Immune Tolerance Symposium. Xi'an, China. October 19, 2013.
307. The Tolls of Trauma. Paper Research Seminar, Department of Anesthesiology, Columbia University. New York, New York. November 20, 2013.
308. Of Men and Mice: An Iterative Strategy to Dissect the Immune Response To Trauma. Helen and John Schilling Lecture, University of Washington, Seattle, WA. January 31, 2014.
309. The Tolls of Trauma, Honors Course: Guest Lecturer, George Washington University, Washington, DC. February 10, 2014.
310. Of Men and Mice: An Iterative Strategy to Dissect the Immune Response to Trauma: Guest Beardsley Lecturer, Brown University, Providence, RI. March 18, 2014.
311. Perspective: The Role of the Surgeon Scientist: Guest Beardsley Lecturer, Brown University, Providence, RI. March 18, 2014.
312. Of Men and Mice: An Iterative Strategy to Dissecting Immune Response to Injury. Grand Rounds, Xiangya Third Hospital. Changsha, China. April 16, 2014.
313. Of Men and Mice: An Iterative Strategy to Dissecting Immune Response to Injury. Anesthesiology Research Forum, Eastern Oriental Hospital. Shanghai, China. April 20, 2014.
314. Biology and Metabolism of Sepsis. 34<sup>th</sup> Annual Surgical Infection Society Meeting. Baltimore, MD. May 1, 2014.
315. Circulating Biomarkers Predict Nosocomial Infection After Trauma in Humans. 2014 International Surgical Group Annual Meeting. Newport, RI. July 15, 2014.
316. Characterization of the Inflammatory Response to Severe Injury; Fourth Joint Symposium of Shanghai (Reconstruction, Repair and Regeneration 2014). Jiao Tong University Affiliated Sixth People's Hospital Shanghai, China September 10-11, 2014.
317. The Role of HMGB1 in driving hypoxia-induced inflammasome activation and mitophagy. IBL HMGB1 meeting. Stockholm, Sweden. Sept 30-Oct 2 2014.
318. Management of Ambulatory Surgery. Minimally Invasive Surgeries and Ambulatory Anesthesia Symposium. Xiangya Third Hospital. Changsha, China. October 17, 2014.

319. Early Patterns of Inflammation. The First Chicheley Hall Trauma Sciences Research Colloquium. Chicheley Hall. Buckinghamshire, UK. November 20, 2014.
320. HMGB1 as an Intracellular and Extracellular DAMP in Hemorrhagic Shock/Trauma. Pitt-Xiangya Mini-Symposium on HMGB1 and other DAMPs. Xiangya Third Hospital. Changsha, China. December 13, 2014.
321. Overview of Trauma and Potential Role of Lymphoid Cells. Nim Bios Lymphoid Cells in Trauma Workshop. Knoxville, TN. January 15, 2015.
322. Of Men and Mice: An Iterative Strategy to Unravel the Mechanisms of Immune Dysregulation Following Trauma. Grand Rounds. Norman Rich Department of Surgery Uniformed Services University. Bethesda, MD. January 27, 2015.
323. The Role of the Surgeon Scientist: Perspective. Honors Grand Rounds. The Ohio State University College of Medicine. Columbus, OH. February 12, 2015.
324. Cellular Protective Mechanisms of Inducible NO Synthase. 4th International conference on NO and Cancer. Seville, Spain. March 12, 2015.
325. Improving the Translational Success of Cell-Based Therapies. Orthopaedic Research Society 2015 Annual Meeting. Las Vegas, Nevada. March 29, 2015.
326. The Use of Biomarkers in Human Trauma to Understand the Immune Response after Injury. Chinese Shock Society. Guangzhou, China. April 26, 2015.
327. Epithelial Cytokines and Danger Signals Shape Outcomes after Trauma. America Transplant Congress. Philadelphia, PA. May 3, 2015.
328. Biomarkers Predict Organ Failure after Trauma in Human. 2015 Tongji Mechanical Ventilation Forum. Tongji University School of Medicine, Shanghai East Hospital. Shanghai, China. July 24, 2015.
329. Targeting HMGB1 in Sepsis: Do We Know Enough? 7<sup>th</sup> International HMGB1-DAMPs Symposium. Bonn, Germany. September 12, 2015.
330. BIOMarkers upon presentation predict clinical course in trauma. The Fifth Symposium of Shanghai Jiao Tong University Affiliated Sixth People's Hospital and University of Pittsburgh School of Medicine - Personalized Medicine and Biomarkers in the 21st Century, and Beyond. Shanghai, China. September 19, 2015.
331. Biomarkers for Patient Stratification in Trauma. Surgical Biology Club. Chicago, IL. October 4, 2015.
332. Introductory Summary: Orthopaedic Trauma Association Basic Science, San Diego, CA. October 8, 2015.
333. Mechanistic Studies Reveal Novel Therapeutic Targets for the Treatment of Sepsis. Science 2015: Scientific Serendipity. Pittsburgh, PA. October 9, 2015.
334. Endotoxin Sensing in Intraabdominal Sepsis: Cell and Receptor Specific Pathways. Innate Immunity Dynamics in Infection and Inflammation Conference. Tianjin, China. November 14, 2015.

335. What does it take for Academic Success? SUS Education Panel, Academic Surgical Congress. Jacksonville, FL. February 4, 2016.
336. Models for Academic Medical Centers. Workshop. Astana, Kazakhstan. March 10, 2016.
337. Endotoxin Sensing Pathways in Bacterial Sepsis: An Integrated View. Genentech, San Francisco, CA. April 22, 2016.
338. Precision Medicine for Trauma: A Strategy for Stratification. Harvard Medical School Surgery Research Day Symposium, Boston MA May 7, 2016.

#### Editorial Boards

1993 - Present	Shock
1994 - Present	Journal of the American College of Surgeons
1996 - 2001	Journal of Surgical Research
1996 - 2002	Sepsis
1996 - Present	Nitric Oxide Biology and Chemistry
1997 - 2000	American Journal of Physiology: Gastrointestinal & Liver Physiology
1998 - 2008	Archives of Surgery
1998 - Present	Surgical Infections
1999 - 2004	Contemporary Surgery
2000 - 2003	New Surgery Molecular Basis of Surgical Disease & New Technology
2006 - Present	World Journal of Gastroenterology
2009 - Present	International Advisory Board of the Asian Journal of Medicine
2013-2014	The Journal of Clinical and Translational Hepatology (Associate Editor)
2013-present	The Journal of Perioperative Medicine (JPOS)
2013-present	Molecular Medicine
2015-present	Military Medical Research

#### Study Sections and Advisory Committees

1993	Ad Hoc Review Committee, NIH-ALCB-1
1995	Ad Hoc Review Committee, NIGMS, NIH
1995-2015	Medinox Inc. Scientific Advisory Board
1996	Ad Hoc Review Committee, NIGMS, NIH
1996-2002	Consultant, GenVec Inc.
1998	Ad Hoc Review Committee, NIGMS, NIH
1998-2004	NitroMed, Scientific Advisory Board
1998-2002	R&D Antibodies, Inc., Scientific Advisory Board
May 2001	Center for Scientific Review Advisory Committee, NIH
November 2001	Center for Scientific Review Advisory Committee, NIH
2002-2005	Member SAT study section, NIGMS, NIH
June 2003	NIH/DoD Working Group on Trauma Research
July 2008	NIH SAT M-C Study Section
January 2009	NIH Study Section
2011-2013	Canadian Health Researcher of the Year Award Committee, CIHR
2011 -present	Research Advisory Board, Shriners Research Foundation
October 2015	National Cancer Institute Laboratory of Pathology – Review Intra-mural Program

Committee Appointments and Offices – National/International

1993-1996	Surgical Infection Society Scientific Studies Committee
1994-1995	Association for Academic Surgery Program Committee
1995-1996	Surgical Infection Society Steering Committee
1995	Association for Academic Surgery Nominating Committee
1995	Biology of Nitric Oxide International Meeting Program Committee
1996-1999	Councilor-At-Large, Surgical Infection Society
1997	Surgical Infection Society Annual Meeting Local Arrangements Chair
1997	Biology of Nitric Oxide International Meeting Program Committee
1997-1999	Association for Academic Surgery Executive Council
1997-2000	Councilor-At-Large, Society of University Surgeons
1999-2000	President-Elect, Society of University Surgeons
2000-2003	Program Committee – The Central Surgical Association
2000-2001	<b>President</b> , Society of University Surgeons
2001-2002	Scientific Council, American Heart Association
2002	American Society of Gene Therapy Cardiovascular Committee
2003	American Society of Gene Therapy Clinical and Regulatory Affairs Committee
2002-2004	President-Elect, International Nitric Oxide Society
2003-2008	Program Committee – American College of Surgeons
2004-2006	<b>President</b> , International Nitric Oxide Society
2005	President Elect, Surgical Infection Society
2006	<b>President</b> , Surgical Infection Society
2008-2014	Member of Residency Review Committee for Surgery
2011	Chair – Program Committee – Shock Society
2013-present	American Surgical Association Fiance-Karl Award Committee
2016	<b>President</b> , Shock Society

UPMC Health System

2003-present	Executive Council, University of Pittsburgh Physicians, UPMC Health System, Pittsburgh, PA
2005-2011	Executive Council, Board of Directors, UPMC Health System, Pittsburgh, PA
2011-present	Board of Visitors, UPMC Health System, Pittsburgh, PA
2011-2013	Chair, Council of Clinical Chairs, UPMC and University of Pittsburgh School of Medicine
2013-present	Chief Academic Officer, University of Pittsburgh Physicians
2013-present	Associate Medical Director, UPMC International and Commercial Services Division

PUBLICATIONSBooks

1. Hepatocyte and Kupffer Cell Interactions. **Billiar TR**, Curran RD (eds). CRC Press, Boca Raton, FL, 1992.
2. Nitric Oxide and Inflammation. Salvini D, **Billiar TR**, Vodovotz Y (eds). Birkhäuser Verlag Basel, Switzerland, 2001, p. 225.

3. Schwartz's Principles of Surgery (8<sup>th</sup> ed). Brunicardi FC, Andersen DK, **Billiar TR**, Dunn DL, Hunter JG, Pollock, RE (eds). McGraw-Hill Companies, New York, 2005.
4. Schwartz's Manual of Surgery (8<sup>th</sup> ed). Brunicardi FC, Andersen DK, **Billiar TR**, Dunn DL, Hunter JG, Pollock, RE (eds). McGraw-Hill Companies, New York, 2006.
5. Schwartz's Manual of Surgery Self-Assessment and Board Review (8<sup>th</sup> ed). Brunicardi FC, Brandt ML, Andersen DK, **Billiar TR**, Dunn DL, Hunter JG, Pollock, RE (eds). McGraw-Hill Companies, New York, 2006.
6. Schwartz's Principles of Surgery (9<sup>th</sup> ed.). Brunicardi FC, Brandt ML, Andersen DK, **Billiar TR**, Dunn DL, Hunter JG, Matthews JB, Pollock RE. McGraw-Hill Companies, New York, 2009.
7. Schwartz's Principles of Surgery (10<sup>th</sup> ed.). Brunicardi FC, Andersen DK, **Billiar TR**, Dunn DL, Hunter JG, Matthews JB, Pollock RE. McGraw-Hill Companies, New York, 2014.

### Articles

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2. Sturm JT, **Billiar TR**, Dorsey JS, Luxenburg MC, Perry JF. (1985 May) Risk factors for survival following surgical treatment of traumatic aortic rupture. *Ann Thorac Surg.* 39(5):418-421. PMID: 3994441.
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7. **Billiar TR**, Maddaus MA, West MA, Dunn DL, Simmons RL. (1988 Apr) The role of intestinal flora on the interactions between nonparenchymal cells and hepatocytes in coculture. *J Surg Res.* 44(4):397-403. PMID: 3283454.
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9. **Billiar TR**, Hanto DH, Simmons RL. (1988 Jul) Inclusion of uncomplicated infectious mononucleosis in the spectrum of Epstein-Barr virus infections in transplant recipients. *Transplantation.* 46(1):159-161. PMID: 2839914.

10. **Billiar TR**, Bankey PE, Svingen BA, Curran RD, West MA, Holman RT, Simmons RL, Cerra FB. (1988 Aug) Fatty acid intake and Kupffer cell function: fish oil alters eicosanoid and monokine production to endotoxin stimulation. *Surgery*. 104(2):343-349. PMID: 3041642.
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