

CURRICULUM VITAE

NAME: William O. Richards, M.D.

DATE AND PLACE OF BIRTH: April 9, 1953
Ann Arbor, Michigan

OFFICE ADDRESS: Department of Surgery
D-5203 Medical Center North
Vanderbilt University School of Medicine
Nashville, Tennessee 37232-2577

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ACADEMIC DEGREES:

1975	Bachelor of Science in Biology Dickinson College Carlisle, Pennsylvania
1979	Doctor of Medicine University of Maryland School of Medicine Baltimore, Maryland

MEDICAL LICENSURE: Maryland – Inactive
Georgia – Inactive
Tennessee – Active

INTERNSHIP:

1979 – 1980	Intern, Surgery University of Florida Gainesville, Florida
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RESIDENCY:

1980 – 1983	Resident, General Surgery University of Maryland Hospital Baltimore, Maryland
1983 – 1984	Chief Resident, General Surgery University of Maryland Hospital Baltimore, Maryland

FELLOWSHIPS:

- 1984 – 1985 Fellow, Portal Hypertension and Endoscopy
Emory University Hospital
Atlanta, Georgia
- 1986 – 1987 Research Associate, Gastrointestinal Motility
Vanderbilt University/Veterans Administration Medical Center
Nashville, Tennessee

APPOINTMENTS:

- 1985 – 1986 Assistant Professor, Surgery
University of Maryland School of Medicine
Baltimore, Maryland
- 1987 – 1991 Assistant Professor of Surgery
Vanderbilt University School of Medicine
- 1987 – present Staff Surgeon
Chief of Surgical Endoscopy and Laser Surgery
Veterans Administration Medical Center
Nashville, Tennessee
- 1987 – 1992 Lieutenant Commander
United States Naval Reserve
- 1992 - present Commander
United States Naval Reserve, Inactive
- 1991 – present Director of Laparoendoscopic General Surgery
Vanderbilt University School of Medicine
- 1991 – 1998 Associate Professor of Surgery (Tenure)
Vanderbilt University School of Medicine
- 1992 Vice-Chairman, Surgical Section
Southern Medical Association (SMA)

APPOINTMENTS:

- 1992 Membership Chairman for the State of Tennessee, Society of
American Gastrointestinal Endoscopic Surgeons (SAGES)
- 1993 Chairman, Surgical Section
Southern Medical Association (SMA)
- 1994–97 Secretary, Surgical Section
Southern Medical Association (SMA)
- 1994–95 Chairman, Poster Session, Society of American
Gastrointestinal Endoscopic Surgeons (SAGES)

1995	Program Director, Update in General Surgery Southern Medical Association (SMA)
1995-96	Chairman, Poster Session, Society of American Gastrointestinal Endoscopic Surgeons (SAGES)
1998-present	Professor of Surgery (Tenure) Vanderbilt University School of Medicine

NATIONAL SOCIETIES:

The Society of University Surgeons
Southern Surgical Association
Fellow, American College of Surgeons
The Society for Surgery of the Alimentary Tract
Association for Academic Surgery
Society of American Gastrointestinal Endoscopic Surgeons
American Society of Gastrointestinal Endoscopy
American Association for Advancement of Science
Association of Veterans Administration Surgeons
Society of Critical Care Medicine
Association of Military Surgeons of the United States
American Federation for Clinical Research
American Motility Society
American Society for Laser Medicine and Surgery
Vanderbilt Chapter of Sigma Xi, Scientific Research Society
American Hepato-Pancreato-Biliary Association

INTERNATIONAL SOCIETIES:

Collegium Internationale Chirurgiae Digestivae

REGIONAL SOCIETIES:

Nashville Surgical Society
Southeastern Surgical Congress
Southern Medical Association
H. William Scott Jr. Society
University of Maryland Surgical Society
Medical and Chirurgical Faculty of Maryland

AWARDS AND HONORS:

1983 – 1984	President, University of Maryland Housestaff Association.
1985	Creatinine clearance and intra-abdominal sepsis. Baltimore Academy of Surgery, Resident Paper Award.
1989	Inhibition of canine "Fed" motility by selective CCK antagonist L- 364,718. Paper Selected for presentation Seventh Annual Vanderbilt University Research Forum.
1993	Role of growth factors in adhesion formation after surgery. Society

of American Gastrointestinal Endoscopic Surgeons (SAGES) 1993 Research Grant Award.

- 1994 The Grant W. Liddle Research Appreciation Award, for commitment and leadership in promoting an interest in research among young physicians at Vanderbilt University Medical Center.
- 1997 Prevalence of gastroesophageal reflux after laparoscopic Heller myotomy. Society of American Gastrointestinal Endoscopic Surgeons (SAGES) 1997 Research Grant Award.

INVITED LECTURES:

Richards WO: Experimental basis for new treatments in gastric motility disorders. Surgery Grand Rounds, University of Maryland School of Medicine, Baltimore, Maryland. May 14, 1988.

Richards WO: The Gastrointestinal System: Physiology, Pathology, and Possibilities for Biomagnetic Diagnosis. The 9th International Conference on Biomagnetism, Vienna, Austria. August 20, 1993.

Richards WO: Update on treatment of carcinoid tumors and syndrome. Grand Rounds and Research Conference, SUNY @ Stony Brook Health Sciences Center, Stony Brook, New York. January 20–21, 1994.

Richards WO: Pathophysiology and treatment of postoperative ileus. Surgical Grand Rounds, Emory University School of Medicine, Atlanta, GA. August 1994.

Richards WO: Visiting Professor, University of Virginia Health Sciences Center, Charlottesville, VA. October 21–22, 1994.

Richards WO: Lectures on advanced laparoscopic surgery including hands on laboratory experience. Visiting Professor, European Institute of Telesurgery, Strasberg, France. June 12-14, 1996.

Richards WO: Building Bridges with Surgeons (Session III, Course #11). Presented by the Society of American Gastrointestinal Endoscopic Surgeons. Opryland Hotel, Nashville, TN. August 11, 1996.

Richards WO: Basic laparoscopic surgery. West African College of Surgeons. February 24-28, 1997, Dakar, Senegal.

Richards WO: Laparoscopic heller myotomy for treatment of achalasia. Matthew Walker Surgical Symposium. Department of Surgery. MeHarry Medical College. March 14, 1997.

Richards WO: Noninvasive measurement of gastrointestinal magnetic fields for early detection of ischemia. Presented at the 10th International Conference on Biomagnetism, Santa Fe, New Mexico, February 1996.

Richards WO: Detection of intestinal ischemia using SQUID magnetometers. Presented at the American Society For Nondestructive Testing, Nashville, Tn. October 1998

Richards WO: First International course of Laparoscopic Surgery. The Ecuadorian Society of Laparoscopic Surgery. Cuenca, Ecuador, June 25, 1999.

CERTIFICATION:

Diplomate, American Board of Surgery, 1985 - Recertified 1995

Society of American Gastrointestinal Endoscopic Surgeons – 1985

Surgical Critical Care American Board of Surgery – 1993

GRANT SUPPORT:

Migrating Myoelectric Activity in Gastrointestinal Anastomoses

Biomedical Research Support Grant 523861.
Funded 9/87 to 10/88; \$7,500.

Pathophysiology of Motility Disorders in Roux-en-Y Limbs

Medical Research Service, Veterans Administration.
Funded 7/88 – 6/90.

Control of Intestinal Motility by Cholecystokinin

Medical Research Service, Veterans Administration.
Merit review grant, 4/91 – 6/94.

A Randomized Phase III Comparative Study of the Safety and Efficacy of Photodynamic Therapy PDT Utilizing Photofrin II versus Thermal Ablation Therapy using the Nd:YAG Laser for Partially Obstructing Esophageal Carcinoma

American Cyanamid, funded 2/89; \$24,865

The Effect of Coherin of Small Intestinal Electrical Activity

Intesco Laboratories, funded 8/1/89 – 8/1/91; \$22,000
Renewal 1/1/92 – 1/1/93; \$48,000

A Multicenter, Double-blind, Randomized Comparative Study of the Efficacy and Safety of Intravenous Temafloxacin vs. Imipenem-Cilastatin Sodium in the Treatment of Intra-abdominal Infection

Abbott Laboratories Protocol M91-626.

A Double Blind Placebo-Controlled Ranging Multicenter Study to Determine the Safety and Efficacy of Perioperative Sandostatin (Octreotide Acetate) Treatment for Reduction in Duration and Severity of Postoperative Ileus

Sandoz Pharmaceuticals; \$54,256

Multicenter Study of Piperacillin/Tazobactam vs. Imipenem/Cilastatin in Intra-abdominal Infections

Lederle Laboratories DP-68-66; \$40,450

GRANT SUPPORT:

Role of Growth Factors and Adhesion Formation After Surgery

Society of American Gastrointestinal Endoscopic Surgeons
SAGES 1993 Research Grant Award; \$15,000
Funded 7/1/93 – 6/30/94

Magnetometry for Early Detection of Intestinal Ischemia

NIH SBIR 1R43DK4770301, subcontract; \$25,000
Funded 4/1/94 – 3/31/96

Biomagnetic Activity of Ischemic Alimentary Tract Smooth Muscle

Veterans Administration Merit Review Support; \$303,000

Funded 10/1/94 – 9/31/97

A randomized double-blind, placebo-controlled, multi-center study of intravenous Betafectin® PG'G-Glucon for the prevention of hospital acquired post-surgical infection in patients at high risk for infection.

Alpha Beta Technology, Inc.

Funded 11/95

Magnetometry for Early Detection of Intestinal Ischemia Phase II

NIH Subcontract for human studies

Funded 6/1/98 to 5/30/2000; \$747,535

Prevalence of Gastroesophageal Reflux after Laparoscopic Heller Myotomy

Society of Gastrointestinal Endoscopic Surgeons

Funded 3/20/97 to 3/19/98.

\$15,000

Pharmacologic Characterization of Arrhythmogenic GI Smooth Muscle

Co-PI William Richards, Mohammed Maleque

Cooperative study with Historically Black Medical School

Funded for 3 years 10/97 to 9/2000

Biomagnetic Activity of Ischemia Alimentary Tract Smooth Muscle

Merit Review proposal

PI William Richards

Funded 10/98 to 9/2001

Three year proposal, \$302,000 direct cost

Pending Support Proposals:

Biomagnetic Signals of Ischemic Intestine

PI William Richards

Assignment Number: 1 Ro1 DK 58197-01

Council Date 05-2000

4 year proposal Direct costs \$850,000

Research Activities

Current research activity is a cooperative project with John Wikswo, Ph.D., AB Learned Professor of Living State Physics, and Alan Bradshaw, Ph.D Research Associate and Director of the Biomagnetism Laboratory Vanderbilt University investigating noninvasive measurement of human gastrointestinal electrical activity using a Super Conducting QUantum Interference Device (SQUID) magnetometer. Preliminary studies show that intestinal electrical activity can be measured using these devices and that electrical activity of the gut is altered during ischemia. Ultimately because of recent advances in high temperature superconductivity, it will soon be possible to construct a SQUID magnetometer optimized for recording the electrical activity of the human GI tract that does not require the use of a magnetic shield or liquid helium. I believe this optimized clinical instrument could

be used to detect clinically significant pathologic conditions of the human GI tract.

My other significant area of interest is the study of functional results after laparoscopic surgery. I have been investigating the functional results after laparoscopic Heller myotomy in treatment of achalasia.. There is controversy as to whether an anti-reflux procedure should be added to the laparoscopic myotomy to prevent pathologic gastroesophageal reflux. I have obtained funding for studies in the clinical research center to measure lower esophageal sphincter pressure and 24 hour pH monitoring of reflux in postop patients. We have developed a gastrointestinal symptom questionnaire that is used to monitor the pre and post symptoms of these patients who undergo laparoscopic Heller myotomy. Other studies to objectively assess the outcome of patients undergoing advanced laparoscopic procedures are being developed.

PATENTS: U.S. Patent No. 5,771,894 entitled “Noninvasive identification of intestinal ischemia from measurement of basic electrical rhythm of intestinal smooth muscle electrical activity using a magnetometer.” Issued June 30, 1998

BOOK CHAPTERS:

1. Richards WO, Williams LF Jr. Obstruction of the large and small intestine. In: Sawyers JL, Williams LF Jr (ed). The Acute Abdomen. The Surgical Clinics of North America, Vol 68. Philadelphia: WB Saunders, 1988:355–376.
-2. Richards WO. Intestinal pseudo–obstruction (Dyskinesia). In: Scott HW Jr. and Sawyers JL. Surgery of the Stomach, Duodenum and Small Intestine, Second Edition. 1991:872–882.
3. Abumrad NN, Sawyers JL, Richards WO. Dumping syndrome and other early postgastrectomy sequelae. In: Scott HW Jr. and Sawyers JL. Surgery of the Stomach, Duodenum and Small Intestine, Second Edition. 1991:620–631.
4. Golzarian J, Richards WO. Choice of animal species for experimental surgery. In: Gregerson H. Experimental Surgery, Gastroenterology. Harwood Academic Publishers, 1994.
5. Richards WO, Sawyers JL. Chronic pancreatitis. In: Rakel RE. Conn's Current Therapy, 1994:497– 501.
6. Richards WO and Key SP. Surgical approaches. In: (ed) Winston Parris, M.D. Cancer Pain Managment: Principles and Practice. Butterworth-Heinemann Publishers, 1997.
7. Richards WO. Gastrointestinal bleeding. In: (eds) Polk, Gardner, Stone Basic Surgery, Edition 5. Quality Medical Publishing, Inc., St. Louis, MO, 1995.

REVIEW ARTICLES:

1. Wang PC and Richards WO. Review of treatment for Achalasia. *Current Surgery*, 54:(4), May 1997.
2. Aliev, RR, Richards, WO, Wikswo, JP Jr. A simple non-linear model of electrical activity in the intestine. Submitted to the *Journal of Theoretical Biology*.

REFEREED JOURNAL PUBLICATIONS:

1. Richards WO, Scovill WA, Shin B. Opsonic fibronectin deficiency in patients with intra-abdominal sepsis. *Surgery* 94:210–217, 1983.
2. Richards WO, Scovill WA, Shin B, Reed WP. Acute renal failure associated with increased intra-abdominal pressure. *Ann Surg* 197:183–187, 1983.
3. Richards WO, Shin B. Massive diuresis after acute renal failure. *Crit Care Med* 12:202–203, 1984.
4. Richards WO, Doolin EJ, Miginsky MP, Moulton AL. Pharmacologic inhibition of scar formation and contraction of intracardiac prosthetic patches. *J Surg Res* 37:33–42, 1984.
5. Kalash SS, Scovill WA, Hill JL, Richards WO. Simplification of cryoprecipitate coagulum choledocholithotomy by deleting thrombin. *Arch Surg* 119:1419–1423, 1984.
6. Richards WO, Scovill WA, Anstine P. Opsonic fibronectin after operation or trauma: Effect of hemodilution and duration of operation. *South Med J* 77:1243–1248, 1984.
7. Dagher FJ, Pais SO, Richards WO, Queral LA. Severe unilateral ischemia of the lower extremity caused by ergotamine: Treatment with nifedipine. *Surgery* 97:369–373, 1985.
8. Richards WO, Keramati B, Scovill W. Fate of retained foreign bodies in the peritoneal cavity. *South Med J* 79:496–498, 1986.
9. Warren WD, Millikan WJ, Henderson JM, Abu-Elmagd KM, Galloway JR, Shires GT III, Richards WO, Salam AA, Kutner MH. Splenopancreatic disconnection: Improved selectivity of distal splenorenal shunt. *Ann Surg* 204:346–355, 1986.
10. Richards WO, Pearson TC, Henderson JM, Millikan WJ, Warren WD. Evaluation and treatment of early hemorrhage of the alimentary tract after selective shunt procedure. *Surg Gynecol Obstet* 164:530–536, 1987.
11. Richards WO, Webb WA, Morris SJ, Davis RC, McDaniel L, Jones L, Littauer S. Patient

- management after endoscopic removal of the cancerous colon adenoma. *Ann Surg* 205:665–672, 1987.
12. Richards WO, Grove–Mahoney D, Williams LF. Hemorrhage from a Dieulafoy type ulcer of the colon: A new cause of lower gastrointestinal bleeding. *Am Surg* 54:121–124, 1988.
 13. DePuey EG, Richards WO, Millikan WJ, Henderson JM. Scintigraphic detection of pulmonary embolization of esophageal variceal sclerosant. *Endoscopy* 20:91–94, 1988.
 14. Richards WO, Williams LF Jr. Pseudo–obstruction: A clinically relevant concept. *Am Surg* 56:26– 31, 1989.
 15. Ditesheim JA, Richards WO, Sharp, KW. Fatal and disastrous complications following percutaneous endoscopic gastrostomy. *Am Surg* 55:92–96, 1989.
 16. Sharp KW, Ross CB, Halter SA, Morrison JG, Richards WO, Williams LF, Sawyers JL. Pancreatoduodenectomy with pyloric preservation for carcinoma of the pancreas: A cautionary note. *Surgery* 105 (5):645–653, 1989.
 17. Richards WO, Parish K, Williams LF Jr. The usefulness of small–bowel manometry in the diagnosis of gastrointestinal motility disorders. *Am Surg* 56:238–244, 1990.
 18. Ross CB, Richards WO, Sharp KW, Bertram PD, Schaper PW. Diverticular disease of the jejunum and its complications. *Am Surg* 56:319–324, 1990.
 19. Geer R, Richards WO, O'Dorisio T, Woltering E, Williams S, Rice D, Abumrad N. Efficacy of octreotide acetate in treatment of severe postgastrectomy dumping syndrome. *Ann Surg* 212:678– 687, 1990.
 20. Richards WO, Geer R, O'Dorisio T, Robarts T, Parrish K, Woltering G, Abumrad NA. Octreotide acetate induces fasting small bowel motility in patients with dumping syndrome. *J Surg Res* 49:483– 487, 1990.
 21. Arnold JH, Alevizatos CA, Cox SE, Richards WO. Propagation of small bowel migrating motor complex activity fronts varies with anastomosis type. *J Surg Res* 51:506–511, 1991.
 22. Worrell JA, Fleischer AC, Kaufman AJ, Lind CD, Richards WO, Josephs LG, Arnold JH, Dietrich MS, Williams LF. Variations in the size and number of stone fragments after gallbladder lithotripsy. *J Ultrasound Med* 10:509–512, 1991.
 23. Meyers WC, Southern Surgeons Club – Richards WO, co–author. A prospective analysis of 1,518 cholecystectomies performed by southern U.S. surgeons. *New Eng J of Med* 324:1073–1078, April 1991.
 24. Parish KL, Chapman WC, Williams LF, Richards WO. Are new treatment methods of

gallbladder stones the death-knell for gallstone surgery? *The Am Surg*, 57:634–641, 1991.

25. May DG, Arns PA, Richards WO, Porter J, Ryder D, Fleming CM, Wilkinson GR, Branch RA. Influence of cirrhosis on the disposition of dapsone. *Clin Pharm and Ther*, 51(6):689–700, June 1992.
26. Holzman M, Sharp KW, Richards WO. Hypercarbia during CO₂ insufflation for therapeutic laparoscopy: A Note of Caution. *Surg Laparoscopy & Endoscopy* 2:11–14, 1992.
27. Richards WO, Watson D, Lynch G, Reed G, Olsen D, Spaw A, Holcomb W, Frexes–Steed M, Goldstein R, Sharp K. Laparoscopic versus open appendectomy: Review of results using these two techniques. *Surg Gynecol Obstet* 177:473–480, 1993.
28. Watson DS, Sharp KW, Vasquez JM, Richards WO. Incidence of inguinal hernias diagnosed during laparoscopy. *Southern Medical Journal* 87(1):23–25, 1994.
29. Golzarian J, Scott HW Jr, Richards WO. Hypermagnesemia–induced paralytic ileus. *Digestive Diseases and Sciences* 39(5):1138–1142, 1994.
30. Richards WO, Golzarian J, Wasudev N, Sawyers JL. Reverse Phasic contractions are present in antiperistaltic jejunal limbs up to twenty–one years postoperatively. *J Am Col Surg* 178(6):557–563, 1994.
31. Golzarian J, Staton D, Wikswow JP Jr, Friedman RN, Richards WO. Diagnosing intestinal ischemia using a noncontact Superconducting QUantum Interference Device. *Am J Surg* 167:586–592, 1994.
32. Copeland ML, Bruner JP, Richards WO, Sundell HW, Tulipan NB. A model for in utero endoscopic treatment of myelomeningocele. *Neurosurgery* 33:3:542–545, September 1994.
33. Holzman DH, Sharp KW, Holcomb GW III, Frexes–Steed M, Richards WO. An alternative technique for laparoscopic cholangiography. *Surg Endosc* 8:927–930, 1994.
34. Chong WK, Malisch TA, Mazer MJ, Lind CD, Worrell JA, Richards WO. Transjugular Intrahepatic Portosystemic Shunt: US Assessment with Maximum Flow Velocity. *Radiology* 189(3):789–794, 1994.
35. Lind CD, Malisch TW, Chong WK, Richards WO, Pinson CW, Meranze SG, Mazer M. Incident of shunt occlusion or stenosis following transjugular intrahepatic portosystemic shunt (TIPS) placement. *Gastroenterology* 106:1277–1283, 1994.
36. Richards WO, Garrard CL, Allos SH, Bradshaw LA, Staton DJ, Wikswow JP. Noninvasive diagnosis of mesenteric ischemia using a SQUID magnetometer. *Annals of Surgery* 221(6):696–705, 1995.

37. Holcomb GWIII, Richards WO, Riedel BD, Laparoscopic Esophagomyotomy for Achalasia in Children J. Ped Surgery, 31(5) 1996:716-718.
38. Becker, YT, Reed, G, Lind, CL, Richards, WO. The Role of Elective Operation in the Treatment of Portal Hypertension Am Surgeon 62:(3):171-177, 1996.
39. Allos SH, Staton D, Bradshaw LA, Holter S, Richards WO. The use of the SQUID Magnetometer for the Diagnosis of Ischemia Caused by Mesenteric Venous Thrombosis. World J Surg 21:173-178, 1997.
40. Richards, WO, Bradshaw, LA, Staton, DJ, Garrard, CL Liu, F, Buchanan, S, Wikswow, JP Jr. Magnetoenterography (MENG): Noninvasive Measurement of Bioelectric Activity in Human Small Intestine. Digestive Diseases and Sciences 41(12):2293-2301, December 1996.
41. Holzman MD, Sharp KW, Holcomb GW, and Richards WO. Laparoscopic Surgical Treatment of Achalasia. Am J Surg 173:308-311,1997.
42. Bradshaw LA, Allos SH, Wikswow JP Jr., and Richards WO. Correlation and comparison of magnetic and electric detection of small intestinal electrical activity. Am J Physiol G1159-G1167, 1997.
43. Hegde S, Seidel, S.A., Ladipo JK, Bradshaw LA, Halter S, Richards WO. Effects of mesenteric ischemia and reperfusion on small bowel electrical activity. J Surg Res, November 1997.
44. Wang P, Sharp K, Holzman M, Holcomb G, Richards WO. The outcome of laparoscopic heller myotomy without antireflux procedure in patients with achalasia.. Am Surgeon 68:(6):515-521, 1998.
45. Seidel, SA, Bradshaw, LA, Ladipo, JK, Wikswow, JP,, Richards, WO. Noninvasive Detection of Ischemic Bowel. Journal Of Vascular Surgery, 30:309-19, 1999.
46. Bradshaw, LA, Ladipo, JK, Staton, DJ, Wikswow, JP Jr., Richards, WO, The human vector magnetogastrogram and magnetoenterogram. IEEE Transactions on Biomedical Engineering Vol. 46, No. 8:959-970, 1999.
47. Rose, DM, Delbecke, D, Beauchamp, RD, Chapman, WC, Sandler, MP, Sharp, KW, Richards, WO, Wright, JK, Frexes, ME, Pinson, CW, Leach, SD. Fluorodeoxyglucose-Positron emission tomography in the management of patients with suspected pancreatic cancer. Ann Surgery 229, No. 5; 729-738, 1999.

48. Garrard, CL, Clemments, RH, Nanney, L, Davidson, JM, Richards, WO. Adhesion formation is reduced after laparoscopic surgery. *Surgical Endoscopy* 13:10-13, 1999.
49. Bruner, JP, Richards, WO, Tulipan, NB, Arney, TL. Endoscopic coverage of fetal myelomeningocele in utero. *Am J of Obstetrics and Gynecology* 1999; 180: 153-8.
50. Seidel, SA, Hegde, S.S., Bradshaw, LA, Ladipo, JK,, Richards, WO, Intestinal Tachyarrhythmias During Small Bowel Ischemia . *Am J of Physiology* 1999, 277; G993-G999.
51. Richards, WO, Clements, RH, Wang, PC, Lind, CD, Mertz, H, Ladipo, JK, Holzman, MD, Sharp, KD. Prevalence of gastroesophageal reflux after laparoscopic Heller myotomy. *Surg. Endoscopy* 1999 13; 1010-1014.
52. Clements, RH, Reddy, S, Holzman, MD, Sharp, KW, Olsen, D, Holcomb, GW, Richards, WO. Incidence and significance of pneumomediastinum after laparoscopic esophageal surgery. *Surg. Endoscopy* 2000 14: 553-555.
53. Aliev RR, Richards WO, Wikswo JP Jr., A Simple Nonlinear Model of Electrical Activity in the Intestine. *J Theor. Biol.* 204; 21-28, 2000.

CONFERENCE PROCEEDINGS, EXTENDED ABSTRACTS:

1. Richards WO, Robarts T, Parish K, Elks S, Williams LF Jr. Inhibition of small intestinal "fed" motility by selective cholecystokinin antagonist L364,718: *Surgical Forum* 40:180–182, 1989.
2. Staton DJ, Soteriou MC, Friedman RN, Richards WO, Wikswo JP Jr. First magnetic measurements of smooth muscle *in vitro* using a high–resolution DC–Squid Magnetometer. *New Frontiers of Biomedical Engineering – Innovations from Nuclear to Space Technology [Proceedings of Annual International IEEE – EMBS Conference proceedings]* 13:550–551, 1991.
3. Staton DJ, Golzarian J, Wikswo JP, Friedman RN, Richards WO. SQUID Magnetometer Diagnosis of Experimental Small Bowel Ischemia. [*Proceedings of the 15th Annual International Conference of the IEEE EMBS*] 1521-1522, 1993.
4. Garrard CL, Halter S, Richards WO. Correlation between pathology and electrical activity during acute intestinal ischemia. *Surgical Forum* 45:368-371, 1994.
5. Staton D, Golzarian J, Wikswo JP Jr, Friedman RN, Richards WO. Measurement of small bowel electrical activity in vivo using a high–resolution magnetometer. (Ed) Deecke L., Baumgartner C., Stroink G., and Williamson S.J. *Biomagnetism: Fundamental Research and Clinical Applications - Proceedings of the 9th International Conference on Biomagnetism*. Elsevier;748-752, 1995.
6. Richards WO, Staton D, Golzarian J, Friedman RN, Wikswo JP Jr. Non–invasive SQUID magnetometer measurements of human gastric and small bowel electrical activity. (Ed) Deecke L., Baumgartner C., Stroink G., and Williamson S.J. *Biomagnetism: Fundamental Research and*

Clinical Applications - Proceedings of the 9th International Conference on Biomagnetism. Elsevier;743-747 1995.

7. Richards WO, Wikswu JP Jr. The Gastrointestinal System: Physiology, pathology, and the possibilities for biomagnetic diagnosis. (Ed) Deecke L., Baumgartner C., Stroink G., and Williamson S.J. Biomagnetism: Fundamental Research and Clinical Applications - Proceedings of the 9th International Conference on Biomagnetism. Elsevier;732-738 1995.
8. Bradshaw LA, Garrard CL, Allos SH, Wikswu JP Jr., Richards WO. Magnetoenterograophy for detection of intestinal ischemia in rabbits. Proceedings of the 17th Annual International Conference on IEEE Engineering in Medicine and Biology Society, September 20 - 23, 1995. Montreal, Canada
9. Staton DJ, Allos SH, Henry VK, Bradshaw LA, Ladipo JK, Richards WO, Wikswu JP Jr. Noninvasive Measurement of the Vector Magnetic Field from Human Gastrointestinal Sources. Proceedings from the 10th International Conference on Biomagnetism, Springer Publishers, 635-638, 1999.
10. Bradshaw LA, Allos SH, Wikswu JP Jr., and Richards WO. Biomagnetic Research in Gastroenterology. Proceedings from the 10th International Conference on Biopmagnetism, Springer Publishers, 594-607, 1999.
11. Bradshaw LA, Allos SH, Wikswu JP Jr., and Richards WO. Magnetic Field Measurment of Rabbit Colonic Electrical Activity. Proceedings from the 10th International Conference on Biopmagnetism, Springer Publishers, 608-611, 1999.
12. Ladipo, JK, Bradshaw, LA, Hegde, SS, Wikswu, JP Jr., Richards, WO. In Vivo Detection of Normal and Pathologic Bowel Electrical Activity using a SQUID Magnetometer, IEEE conference proceedings 1997
13. Bradsahw, LA, Ladipo, JK, Wikswu, JP Jr., Richards, WO The Vector Magnetic Field of the Human Stomach and Small Bowel. IEEE Proceedings 1997
14. Bradshaw, LA, Wells, R, Paul, S, Richards, WO, Wikswu, JP Jr., Noninvasive Measurement of Gastric Propagation Using a SQUID Magnetometer. IEEE Proceedings 1997
15. Richards WO, Bradshaw, LA. Detection of Intestinal Ischemia Using SQUID Magnetometers. Proceedings of the American Society For Nondestructive Testing, Nashville, Tn. October 1998

OTHER JOURNAL PUBLICATIONS:

1. Richards WO, Schnaper L, Shin B. Creatinine clearance and intra-abdominal sepsis. Curr Surg 42:111-112, 1985.

2. Pierce DF and Richards WO. Therapeutic Advances: Combining Photoradiation and Laser Therapy. *Comp Therapy* 16:3–8, 1990.
3. Drougas JG, Richards WO, Mazer M. Transjugular intrahepatic portosystemic shunts. Accepted Post Graduate General Surgery, 1993.
4. Allos SH and Richards WO. Laparoscopic examination of the pelvis for identification of inguinal hernia. *Chirurgia International* 1-2/1995:8-9.

SUBMITTED OR IN PREPARATION:

1. Ladipo JK, Hegde SS, Halter S, Bradshaw LA, Richards WO. Correlation between histopathology and intestinal basic electrical rhythm activity during ischemia., In preparation.
2. Bradshaw, LA, Ladipo, JK, Haupt, CD, Seidel, SA, Van Leeuwen, P, Wikswo, JP, Richards, WO. Noninvasive Measurement of Gastric Propagation Using a Multichannel SQUID Magnetometer. In Preparation.
3. Draper, KR, Eubanks, WS, Holzman, MD, Lind, CD, Brody, FJ, Sharp, KW, Clements, RH, Wang, PC, Richards, WO. Symptomatic Outcome After Laparoscopic Heller Myotomy With and Without Partial Fundoplication. Submitted to Surgical Endoscopy

VIDEO PRESENTATIONS:

1. Richards WO, Holcomb GW III. Kumar cholangiography: A new and novel method. Presentation at the Society of American Gastrointestinal Endoscopic Surgeons (SAGES), April 1993.
2. Sharp KS, Richards WO, Holcomb GW III. Laparoscopic Heller myotomy for achalasia. Presented at the American Collge of Surgeons, October 1995.
3. Richards WO, Wang P, Holzman M, Sharp K. Laparoscopic repair of rectal prolapse: Ripstein Procedure. Presented at Southeastern Surgical Congress, Feb. 1998.
4. Richards, WO, Wolff, R, Sharp, KW, Holzman, MD, Laparoscopic Heller Myotomy without Antireflux Procedure. Video presentation at the American College of Surgeons October 14, 1999.

ABSTRACTS:

1. Richards WO, Pearson TC, DePuey EG, Millikan WJ, Henderson JM, Warren WD. Pulmonary embolization of sclerosant after intravariceal sclerotherapy. *Hepatology* 5:976, 1985.
2. Richards WO, Williams LF. Propagation of the migrating motor complex occurs after ablation of

the submucosal or myenteric nerve plexus. *Gastroenterology*. 95:886, 1988.

3. Chapman WC, Ross CB, Richards WO, Demetriou AA, Williams LF. The polyamine spermine causes decreased gallbladder contractility in vitro. *Gastroenterology*. 95:859, 1988.
4. Concepcion RS, Koch MD, McDougal WS, Richards WO. Detubularized intestinal segments in urinary tract reconstruction : Why do they work? *J. Urol* 139:310A, 1988.
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6. Richards WO, Millikan WJ, Henderson JM, Galloway JR, Warren WD. Urgent esophagogastrosopy in 100 consecutive portal hypertensive patients with hemorrhage. Society of American Gastrointestinal Endoscopic Surgeons, April 24, 1987.
7. Richards WO, Williams LF. Myoelectrical activity of the upper gastrointestinal tract. H. William Scott, Jr. Society, Nashville, Tennessee, April 24, 1987.
8. Concepcion R, Koch M, Richards WO. Detubularized intestinal segments in lower urinary tract reconstruction: why do they work? American Urological Association, Boston, Massachusetts, June 6, 1988.
9. Alevizatos C, Richards WO, Chapman W, Parrish K, Elks S, Williams LF. Propagation of phase III migrating motor complex activity fronts across small intestinal anastomoses. Poster at 7th Annual Vanderbilt Research Forum, 1990.
10. Arnold JH, Joseph LG, Chapman WC, Richards WO, Lind CD, Worrell JA, Stephens WH, Lorenz CH, Price RR, Williams LF. The principles of biliary extracorporeal lithotripsy. *Advances in Biliary Shock Wave Lithotripsy* New Orleans, LA March 31, 1990.
11. Richards WO. Evaluation and treatment of the patient with postgastrectomy syndrome. University of Maryland Surgical Society Baltimore, Maryland May 3, 1990.
12. Arnold JH, Josephs LG, Chapman WC, Richards WO, Lind C, Worrell J, Williams LF. Will biliary lithotripsy survive? Presented Southern Medical Assoc. October 1990.
13. Arns PA, Richards WO, White L, Ryder D, Wilkinson GR, Branch RA. Stereoselective mephenytoin disposition in patients before and after surgical portasystemic shunt. Presented American Association for the Study of Liver Diseases, 1990.

14. Arns PA, Richards WO, White L, Ryder D, Wilkinson GR, Branch RA. Assessment of hepatic dysfunction and portasystemic shunt using the stereoselectivity of mephenytoin disposition. Presented American Association for the Study of Liver Diseases, 1990.
15. Arnold JH, Alevizatos CA, Cox SE, Richards WO. Propagation of small bowel phase III migrating motor complex activity fronts varies with anastomosis type. Poster presentation Assoc. Academic Surgery, Houston, TX. November 1990.
16. Josephs, LG, Chapman, WC, Williams, LF, Lind, CD, Richards, WO, Worrell, JA Lessons learned from a trial of biliary lithotripsy treatment for gallbladder gallstones. Gastro 100 (no. 5) A308, 1991.
17. Rose DM, Soteriou MC, Kuhlman R, Richards WO. Selective cholecystokinin antagonist L365,260 prevents initiation of "fed" motility in canine small intestine. Gastro 100 (no. 5) A839, 1991.
18. Richards WO, Sharp KW. Evaluation and treatment of the patient with chronic abdominal pain. Presented Southern Medical Association, November 1991.
19. Golzarian J, Kuhlman R, Richards WO. The basic electrical rhythm (BER) of proximal small intestine is more phase locked or coherent than distal intestine. Gastroenterology, 102:A451, April 1992.
20. Golzarian J, Richards WO. Comparison of two methods for analyzing small intestine motor patterns. Gastroenterology, 102:A451, April 1992.
21. Soteriou M, Golzarian J, Richards WO. Duration and number of electrical response activity is correlated to the duration and amplitude of guinea pig small bowel contractions in vitro. Gastroenterology 102:A518, April 1992.
22. Lind CD, Chong WK, Pinson CW, Richards WO, Mazer, M. Transjugular intrahepatic portosystemic shunt (TIPS). Placement for the treatment of portal hypertension and variceal hemorrhage. Gastroenterology 102:A843, April 1992.
23. Richards, WO. Laparoscopic marcy type repair of the indirect hernia. Presented at the Third World Congress in Bordeaux, France, June 1992.
24. Golzarian J, Richards WO. Frequency, amplitude and propagation velocity of spiking activity is decreased in ischemic guinea pig small intestine. Presented as a poster, Sixteenth Annual AVAS, Albuquerque, New Mexico, 1992.
25. Golzarian J, Staton D, Wikswo JP Jr., Friedman RN, and Richards WO. First biomagnetic measurements of intestinal basic electrical rhythms (BER) in vivo using a high-resolution magnetometer. Gastroenterology 103:1385, October, 1992.

26. Richards WO, Golzarian J, Wasudev N, Sawyers JL. Reverse peristalsis is present in antiperistaltic jejunal limbs up to twenty–one years after surgery. Presented as a poster, Society for Surgery of the Alimentary Tract, 1992.
27. Lynch GB, Rice D, Abumrad N, Richards WO. Laparoscopic vs. open cholecystectomy – The effect of stress hormones on adynamic ileus. Presented at the Society of University Surgeons Resident Section, April 1993.
28. Golzarian J, Staton D, Wikswo JP, Friedman RN, Richards WO. Diagnosis of intestinal ischemia (Int Isch) using a non–contact Superconducting Quantum Interference Device (SQUID). Presented at the Society of University Surgeons Resident Section, February 1993.
29. Lind CD, Malisch TW, Chong WK, Richards WO, Pinson CW, Meranze S, Mazer M. Incidence of shunt occlusion or stenosis with transjugular intrahepatic portosystemic shunts (TIPS). *Gastroenterology* 104(4):A941, April 1993.
30. Richards WO, Golzarian J, Staton D, Friedman RN, Wikswo JP Jr. SQUID. A form of Sushi or a new non–invasive diagnostic device for the gut. H. William Scott Society Annual Meeting, April 1993.
31. Holzman M, Sharp K, Holcomb GW III, Frexes–Steed M, Chapman W, Richards WO. A Novel and easy method for cholangiography. Presented at SAGES, April 1993.
32. Lynch GB, Rice D, Abumrad N, Richards WO. Laparoscopic verses open cholecystectomy: The effect of stress hormones on adynamic ileus. Presented at Association for VA Surgeons, 1993.
33. Golzarian J, Staton D, Wikswo JP Jr, Friedman RN, Richards WO. Non–contact measurement of biomagnetic signals in ischemic small intestine. Presented as a poster, Society for Surgery of the Alimentary Tract, 1993.
34. Garrard CL, Wikswo JP Jr., Staton D, Golzarian J, Gallen C, Richards WO. Noninvasive measurement of small bowel electrical activity. *Gastroenterology* 106(4):A502.
35. Garrard CL, Nanney L, Richards WO. Adhesion formation is reduced after surgery. Best paper presentation at SAGES, April 1994. Poster presentation at The World Congresses of Gastroenterology, October 1994.
36. Drougas JG, Wright JK Jr., Richards WO, Chapman WC. Laparoscopy in the management of suspected peritoneal tuberculosis. Presentation at Southern Medical Association, November 1994.
37. Bradshaw LA, Garrard CL, Wikswo JP, and Richards WO. Transabdominal magnetic recording of small bowel ischemia in anesthetized rabbits. *Gastro* 107(4):1234, 1994.

38. Garrard CL, Wikswow JP, Staton D, Goltzarian J, Gallen C, Richards WO. Measurement of the human gastric slow wave activity with a SQUID magnetometer. Presented VA Surgeons, Reno Nevada, May 1994.
39. Geevarghese S, Garrard CL, Richards WO. Electrical activity of the intestine during mesenteric venous occlusion. Presented, Society of University Surgeons Resident Section. February 1995.
40. Becker YT and Richards WO. The role of elective operation in the treatment of portal hypertension. Presented, Southeastern Surgical Congress, February 1995.
41. Richards WO: Update on surgical and radiologic procedures for variceal bleeding. Postgraduate course Southeastern Surgical Congress. New Orleans, LA. February 5, 1995.
42. Richards WO: Laparoscopic Heller myotomy. Postgraduate course Southeastern Surgical Congress. New Orleans, LA. February 5, 1995.
43. Holzman MD, Sharp KW, Richards WO. Thoracoscopic vs. laparoscopic treatment of achalasia. Gastro 108(4):A1223, 1995.
44. Allos SH, Bradshaw A, Wikswow JP Jr., Richards WO. Noninvasive measurement of large bowel electrical activity. Gastro 108(4):A562, 1995.
45. Allos SH, Sorrell M, Slater S, Staton D, Wikswow JP Jr., Richards WO. SQUID Magnetometer diagnosis of mesenteric vein thrombosis. Gastro 108(4):A269, 1995.
46. Staton DJ, Bradshaw A, Wikswow JP Jr., Richards WO. Noninvasive magnetic field recordings of gastric BER conduction velocity. Gastro 108(4):A693, 1995.
47. Lind CD, Chong WK, Richards WO, Pinson CW, Meranze SG, and Mazer MJ. Predictors of shunt stenosis following transjugular intrahepatic portosystemic shunt (TIPS) placement. Gastro 108(4):A1110, 1995.
48. Bradshaw LA, Wikswow JP Jr., Richards WO. A comparison of the effects of abdominal layers on external electric potentials and magnetic fields from gastrointestinal sources. Dig Dis and Sci 41(9):1984.
49. Bradshaw LA, Wikswow JP Jr., Richards WO. A 2-D spatio-temporal model of external magnetic fields from gastrointestinal electrical activity. Dig Dis and Sci 41(9):1984.
50. Bradshaw LA, Allos SH, Wikswow JP Jr., Richards WO. The effect of abdominal layers on electric and magnetic fields from gastrointestinal electrical activity. Gastro:110, No.4:A640, 1996.

51. Bradshaw LA, Wikswu JP Jr., Richards WO. The effect of abdominal layers on electric and magnetic fields from gastrointestinal electrical activity: Computer simulations. Gastro:110, No.4:A639, 1996.
52. Staton DJ, Allos SH, Ladipo JK, Wikswu JP Jr., Richards WO. First noninvasive measurement of human gastrointestinal electrical sources using a Vector SQUID magnetometer. Gastro:110, No.4:A764, 1996.
53. Eller RF, Olsen D, Sharp KS, Richards WO. Laparoscopic Nissen fundoplication - Is division of the short gastric vessels necessary? Presented SAGES, 1997.
54. Wang PC, Holzman MD, Richards WO. Laparoscopic treatment of patients with gastroesophageal reflux and gastroparesis. Presented as poster presentation at SAGES, March 1997.
55. Ladipo JK, Halter S, Hegde SS, Bradshaw LA, Richards WO. Histopathologic correlation of intestinal basic electrical rhythm activity during ischemia. Poster presentation, VA Surgeons, May 1997.
56. Hegde SS, Bradshaw LA, Ladipo JK, Richards WO. Effects of mesenteric ischemia and reperfusion on small bowel basic electrical rhythm. Presented at the Association of VA Surgeons, May 1997.
57. Wang PC, Richards WO. The outcome of heller myotomy without antireflux procedure in patients with achalasia. Presented at the Scott Society 1997.
58. Richards WO. Laparoscopic surgery in West Africa. Presented at the Scott Society 1997.
59. Bradshaw LA, Ladipo JK, Hegde SS, Just S, Wikswu JP, Richards WO. The vector magnetic field of the human stomach. Gastro 112(4):A704.
60. Hedge SS, Bradshaw LA, Lapido JK, Wikswu JP, Richards WO. Intestinal tachyarrhythmias during small bowell ischemia. Gastro 112(4):A368.
61. Hegde SS, Bradshaw LA, Lapido JK, Richards WO. Effects of mesenteric ischemia on small bowel basic electrical rhythm. Gastro 112(4):A1447.
62. Wang PC, Olsen D, Holzman MD, Sharp KW, Richards WO. Lapaoscopic approach to patients with failed antireflux procedures. Poster presentation, SMA, November 1997.
63. Wang PC, Holzman MD, Richards WO. Laparoscopic repair of rectal prolapse ripstien procedure. Paper presentation, SMA, November 1997.
64. Ladipo JK, Hegde SS, Halter S, Bradshaw LA, Richards WO. Correlation between

histopathology and intestinal basic electrical rhythm activity during ischemia. Paper presentation, SMA, November 1997.

65. Wang P, Sharp K, Holzman M, Holzomb G, Richards WO. The outcome of laparoscopic heller myotomy without antireflux procedure in patients with achalasia. Presented SESC, Febuary 1997.
66. Ladipo, JK, Bradshaw, LA, Hegde, SS, Halter, S, Seidel, SA, Wikswo, JP, Richards, WO, Non-Invasive Detection of Normal and Ischemic Bowel In Vivo Using a SQUID. Gastro , April 15, 1998, Vol. 114, #4, Part 2, G1591
67. Ladipo, JK, Seidel, SA, Bradshaw, LA, Halter, S, Richards, WO. Basic Electrical Rhythm (BER) Activity As a Measure of Bowel Viability During Mesenteric Ischemia and Reperfusion. Gastro. April 15, 1998, Vol. 114, #4, Part 2, S0133
70. Lind, CD, Clements, RH, Wang, P, Mertz, H, Holzman, M, Sharp, K, Richards, WO, Laparoscopic Heller Myotomy (LHM) without Fundoplication Improves Symptoms of Gastroesophageal Reflux (GER) in Patients with Achalasia. Gastro, April 15, 1998, Vol. 114, #4, Part 2, G0836
71. Lind, CD, Clements, RH, Mertz, H, Holzman, MD, Sharp, KW, Richards, WO , Non-Esophageal Gstrointestinal Symptoms (NEGS) Predict Worse Results after Fundoplication for Gastroesophageal Reflux Disease. Gastro, April 15, 1998, Vol. 114, #4, Part 2, G0837
72. Bradshaw, LA, Ladipo, JK, Haupt, CD, Seidel, SA, Van Leeuwen, P, Wikswo, JP, Richards, WO, Noninvasive Measurement of Gastric Propagation Using a Multichannel Squid Magnetometer. Gastro, April 15, 1998, Vol. 114, #4, Part 2, G3003
73. Clements, RH, Chekan, EG, Eubanks, WS, Holzman, MD, Lind, CD, Brody, FJ, Sharp, KW, Wang, PC, Richards, WO. Symptomatic Outcome after Laparoscopic Heller Esophagomyotomy with and without Fundoplication. Gastro, April 15, 1998, Vol.114, #4, Part 2, S0046
74. Draper, KR, Mertz, H, Caudill, M, Sharp, K, Holzman, MD, Wolff, RS, Richards, WO Irritable Bowel Symptoms Predict Worse Functional Outcome after Laparoscopic Antireflux Surgery. Gastro, April 1999, Vol.116, No. 4, A1308
75. Bradshaw, LA, Ladipo, JK, Richards, WO Characterization of Gastric Electrical Activity Using a SQUID Magnetometer. Gastro., April 1999, Vol. 116, No.4, A963
76. LA Bradshaw, A Redmond, WO Richrards. Biomagnetic Dectection of Gastric Dysrhythmia Associated with Vagotomy. Presented at 11th Biennial Meeting, American Motilty Society, September 2000.
77. LA Bradshaw, A Redmond, WO Richrards. Correlation of Magnetic and Electric Detection of

Gastric Electrical Activity. Presented at 11th Biennial Meeting, American Motility Society, September 2000.

78. Aliev, RR, Richards, WO, Wikswo, JP, A Simple Nonlinear Model of Electrical Activity in the Intestine. J. Theor. Biol. 2000, **204**, 21-28.
79. L Khaitan, KW Sharp, MD Holzman, J Cohen, WO Richards. Evaluation of Dysphagia After Fundoplication with Esophageal Impedance. Submitted to DDW, December 2000.
80. L Khaitan, E Powitsky, M Courey, MD Holzman, WO Richards. Is one Episode Enough? Redefining Pathologic Extra-Esophageal Reflux. Submitted to DDW, December 2000.
81. Cohen, JA, Harris, PA, Byrne, DW, Arian, A, Khaitan, L, Holzman, MD, Sharp, KW, Richards, WO. Sleep Architecture in Patients with Gastroesophageal Reflux Disease. Submitted to SAGES Scientific Session April 2001 Meeting.
82. Khaitan, L, Cohen, JA, Richards, WO. Laparoscopic Adhesiolysis and Placement of Seprafilm: A Novel approach to patients with Intractable Abdominal Pain. Submitted to SAGES Scientific Session April 2001 Meeting.
83. Khaitan, L, Cohen, JA, Richards, WO. Achalasia Following Fundoplication. Submitted to SAGES Scientific Session April 2001 Meeting.

INSTITUTIONAL COMMITTEES:

11987–present	Chairman, Laser Safety Committee (VA)
1988–present	Quality Assurance Committee (VA)
1990–present	Tumor Registry Committee (Vanderbilt)
1995-present	Performance Based Evaluation Compensation Subcommittee
1995-1997	Health 123 Platinum Advocacy Committee
1996-present	Chairman, Blood Utilization Review Committee
1996-present	Vanderbilt Medical Group, Space Committee
1996-present	Chairman, Laparoscopic Subcommittee
1996-1998	Medicine Chairman Search Committee
1996-present	Product Line Committee

NATIONAL COMMITTEES:

1992-present	Committee on Resident Education, SAGES
1994-1999	State Chairman Committee, SAGES
1996-present	Practice Guidelines Committee, SES
1996-present	Program Committee, SAGES
1997-1999	Advisory Committee on Scientific Activities, SMA
1997-present	Program Committee, AGA 1997 Annual Meeting
1997-1998	Coordinating Committee of Scientific Activities, SMA
1999-present	Research Committee, SAGES

TEACHING:

1987–Present	Lecture, Portal hypertension, for each group of medical students during third year surgical clerkship.
1987–Present	Preceptor for third year students surgery clerkship
1990	Faculty cholecystectomy course. September 20–21, 1990; November 8–9, 1990. Lecture: Laser Physics, Laser Safety. Hands on cholecystectomy laboratory.
1991–1992	Advanced laparoscopic surgery course. July 1991; November 1991; and January 1992. Guest speakers and hands on laboratory.
1992 -1993	Advanced Laparoscopic Bowel Resection Course. June; August; October; and December 1992 and January 1993. Guest speakers and hands on laboratory.
1995	Faculty for postgraduate course Southeastern Surgical Congress
1995, 1996, 1997	Chairman, Annual Update in General Surgery Course. Sponsored by Southern Medical Association, Sea Island, GA.
1996 - present	Director, Surgical Skills Hands on Course for Surgical Residents. Held every 3 months for different level residents to acquire technical skills. Collaboration with United States Surgical Corporation.
2000	Faculty for two of the Society of American Gastrointestinal Endoscopic Surgeons Postgraduate courses - Motility and Colorectal courses.

FELLOWS AND TRAINEES:

1987	Richard Geer, M.D., Resident in Surgery. Worked with N. Abumrad, M.D. and in my lab on GI motility, effect of Sandostatin on intestinal motility.
1987	Chris Alevizatos, Medical Student. Working in lab on GI Motility. Several posters and papers.
1988	Ken Parrish, M.D., Resident in Surgery. Worked in lab. Several papers and presentation.

- 1989 Tim Robarts, Medical Student. Working in lab. Award presentation of Inhibition of canine 'fed' motility by selective CCK antagonist L364,718", at 7th annual Vanderbilt Research Forum
- 1989 John Arnold, M.D., Resident in Surgery. Worked in lab. Several posters and presentations.
- 1990 Michael Rose, Medical Student. Worked in lab on GI motility. Several abstracts published.
- 1991 Javad Golzarian, M.D. Worked in lab on GI motility. Several abstracts and papers accepted for presentation and publication.
- 1991 Derek Watson, Medical Student. Worked in lab on surgery. Two papers accepted for presentation.
- 1991 George Lynch, Medical Student. Worked in lab on GI motility. Two papers accepted for presentation.
- 1992–93 Mike Holzman, M.D. Resident in surgery Worked in lab on GI motility and surgery.
- 1993 C. Louis Garrard, M.D. Resident in surgery Worked in lab on non-invasive diagnosis of intestinal ischemia and peritoneal adhesion formation. Four abstracts and one paper accepted. Best Paper Award 1994 SAGES Meeting.
- 1994 Sunil K. Geevarghese, Medical Student. Worked in lab on non-invasive diagnosis of intestinal ischemia and peritoneal adhesion formation.
- 1995 Suhail Allos, M.D. Resident in surgery Worked in lab on non-invasive diagnosis of intestinal ischemia.
- 1995 Alan Bradshaw, Ph.D.. Member of his doctoral thesis committee. "Measurement and Modeling of Gastrointestinal Bioelectrical and Biomagnetic Fields".
- 1995-96 Richard Eller, M.D. Fellow in Laparoscopic Surgery.
- 1995-97 J.K. Ladipo, M.D. Fellow in research working in lab on noninvasive diagnosis of intestinal ischemia.
- 1996-97 Sanjay Hegde, M.D. Resident in surgery worked in lab on noninvasive diagnosis of intestinal ischemia.

1996-97	Peter Wang, M.D. Fellow in Laparoscopic Surgery.
1997-98	Ronald H. Clements, M.D. Fellow in Laparoscopic Surgery.
1997	Scott Siedel, M.D. Resident in surgery working on noninvasive diagnosis of intestinal ischemia.
1998-2000	Allison Redmond, B.E. Working in lab on noninvasive diagnosis of intestinal ischemia.
1998-1999	Renee S. Wolff, M.D. Fellow in Laparoscopic Surgery.
1998-2000	Karen Draper-Stepanovich, M.D., Fellow in Laparoscopic Surgery.
1999-2001	Jonathan A. Cohen, M.D., Fellow in Laparoscopic Surgery.
2000-2002	Leena Khaitan, M.D., Fellow in Laparoscopic Surgery.

SURGERY GRAND ROUNDS:

06/18/88	Lasers in surgical practice
02/11/89	Small intestinal motility
04/18/89	Current treatment portal hypertension
09/30/89	Intestinal obstruction and pseudo-obstruction
01/20/90	Symposium on colorectal cancer
09/15/90	Current management of variceal bleeding
06/08/91	Laparoscopic Appendectomy
06/06/92	The future of Laparoscopic surgery
12/19/93	Update on postoperative adynamic ileus
01/15/94	Small bowel tumors
01/07/95	Carcinoid tumors
01/13/96	Laparoscopic Nissen Fundoplication
05/17/97	Laparoscopic "Top Gun"
10/22/99	Laparoscopic Antireflux Surgery
09/22/00	Emerging Options in the Treatment of GERD