

CURRICULUM VITAE

Kirk A. Ludwig, MD, FACS, FASCRS

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CURRENT POSITION: The Vernon O. Underwood Professor
Professor of Surgery
Chief, Division of Colorectal Surgery
Medical College of Wisconsin

DATE AND PLACE OF BIRTH: October 2, 1962
Cincinnati, Ohio

EDUCATION:

1980 - 1984 B.S., Biology, John Carroll University, Cleveland, OH
1984 - 1988 M.D., University of Cincinnati College of Medicine, Cincinnati, OH

POSTGRADUATE TRAINING AND FELLOWSHIP APPOINTMENTS:

07/1988 - 07/1994 Resident, General Surgery, Medical College of Wisconsin, Milwaukee, WI
07/1991 - 06/1992 Research Fellow, Department of Surgery, Digestive Disease Research Center, Medical College of Wisconsin, Milwaukee, WI
01/1993 - 06/1993 Surgical Registrar, South Warwickshire Hospital, Warwick, England
07/1993 - 06/1994 Administrative Chief Resident, Department of Surgery, Medical College of Wisconsin, Milwaukee, WI
07/1994 - 06/1995 Laparoscopic Colorectal and Research Fellow, Department of Colorectal Surgery, The Cleveland Clinic Foundation, Cleveland, OH
07/1995 - 06/1996 Administrative Chief Resident in Colorectal Surgery, Department of Colorectal Surgery, The Cleveland Clinic Foundation, Cleveland, OH

MEDICAL LICENSURE:

	Number	Issue Date	Expiration
State of Wisconsin	30451-020	07/01/1989	10/31/2017
State of North Carolina	96-00989	07/20/1996	10/02/2017

SPECIALTY BOARD CERTIFICATION:

American Board of Surgery

Certified	09/12/1995
Recertified	12/14/2005
Recertified	12/2016

SPECIALTY BOARD CERTIFICATION (cont'd):

American Board of Colon and Rectal Surgery

Certified	09/19/1998
Recertified	01/01/2009
Recertified	5/2017

ACADEMIC APPOINTMENTS AND PRACTICE POSITIONS:

07/1996 - 12/2007	Assistant Clinical Professor of Surgery, Department of Surgery, Duke University Medical Center, Durham, NC
11/1996 - 12/2007	Director, Anorectal Physiology Laboratory, Duke University Medical Center, Durham, NC
10/2003 - 01/2004	Interim Chief, Section of Gastrointestinal Surgery, Department of Surgery, Duke University Medical Center, Durham, NC
01/2004 - 12/2007	Chief, Section of Gastrointestinal and Colorectal Surgery, Department of Surgery, Duke University Medical Center, Durham, NC
01/2008 - Present	Associate Professor of Medicine, Department of Medicine, Gastroenterology and Hepatology, Medical College of Wisconsin, Milwaukee, WI
01/2008 - 06/2012	Associate Professor of Surgery, Department of Surgery, Medical College of Wisconsin, Milwaukee, WI
01/2008 - 07/2010	Associate Program Director, Department of Surgery, General Surgery Residency, Medical College of Wisconsin, Milwaukee, WI
01/2008 - 07/2010	Associate Director, Clinical Cancer Center, Froedtert and the Medical College of Wisconsin, Milwaukee, WI
09/2009 - Present	The Vernon O. Underwood Professor in Colon Cancer Research, Department of Surgery, Medical College of Wisconsin, Milwaukee, WI
07/2010 - Present	CoC Cancer Liaison Physician, Medical College of Wisconsin/Froedtert Hospital Clinical Cancer Center, Milwaukee, WI
07/2010 - Present	Chief, Division of Colorectal Surgery, Department of Surgery, Medical College of Wisconsin, Milwaukee, WI
07/2012 - Present	Professor of Surgery, Department of Surgery, Medical College of Wisconsin, Milwaukee, WI

PEER-REVIEWED GRANTS:

- 1) **Study Title:** N1048: NCCTG through Alliance for Clinical Trials in Oncology ('Alliance' or 'ACTION')
A Phase II/III trial of Neoadjuvant FOLFOX, with Selective Use of Combined Modality Chemoradiation versus Preoperative Combined Modality Chemoradiation for Locally Advanced Rectal Cancer Patients Undergoing Low Anterior Resection with Total Mesorectal Excision
Role: Institutional Principal Investigator
Status: Open
- 2) **Study Title:** A Phase III Prospective Randomized Trial Comparing Laparoscopic-assisted Resection Versus Open Resection for Rectal Cancer.
Role: Institutional Principal Investigator
Sponsored by American College of Surgeons Oncology Group (ACOSOG)
ACOSOG-Z6051
Status: Closed
- 3) **Study Title:** A phase II trial of neoadjuvant chemoradiation and local excision for uT2N0 rectal cancer.
Role: Institutional Principle Investigator

Sponsored by American College of Surgeons Oncology Group (ACOSOG)
2006
Status: Closed

- 4) **Study Title:** Acoustic radiation force imaging of colorectal tissues.
Role: Co-Investigator
R01 CA114075-01
\$250,000 (5% Effort)
February 1, 2005-January 31, 2010
- 5) **Study Title:** A prospective study of the prognostic significance of microsatellite instability in patients with early age-of onset colorectal cancer.
Role: Institutional Principle Investigator
Sponsored by American College of Surgeons Oncology Group (ACOSOG)
2003-2004
- 6) **Study Title:** Cancer care outcomes research and surveillance consortium (CanCORS.) colorectal cancer quality enhancement research initiative.
Durham VAMC and Duke University
Role: Site-Investigator
National Cancer Institute
\$4,695,659 (5% Effort)
April 2001-2007

INDUSTRY GRANTS:

- 1) **Study Title:** Efficacy and Safety of LifeSeal™ Kit for Staple Line Sealing in Colorectal and Coloanal Anastomoses: A Prospective Randomized Study.
Role: Institutional Principal Investigator
LifeBond, Ltd.
\$116,293
March 2017 – 2021
- 2) **Study Title:** Prospective Single Blinded Randomized Controlled Trial Comparing the Covidien EEA™ Hemorrhoid and Prolapse Stapling Set with DST Series™ Technology vs. Ethicon PPH03 in a Hemorrhoidopexy Procedure.
Role: Institutional Principal Investigator
Covidien
2011-2013
- 3) **Study Title:** A randomized, controlled, open-label tolerability and efficacy study of TU-100 for the treatment of postoperative ileus in patients undergoing laparotomy for large bowel resection.
Role: Co-Principle Investigator
Tsumura
\$97,000
Status: Closed
- 4) **Study Title:** A multi-center, randomized, double-blind, sham-controlled trial investigating submucosal delivery of radiofrequency energy delivery to the anal canal (the SECCA procedure) for treatment of fecal incontinence.
Role: Institutional Principal Investigator
Curon Medical

\$90,000
2002-2006

- 5) **Study Title:** A phase II, double-blind, placebo controlled, parallel study of efficacy of ADL 8-2698- (a selective opioid antagonist) for shortening the duration of postoperative ileus.
Role: Institutional Principal Investigator
Adolor Corporation
\$102,465
2001-2004
- 6) **Study Title:** A research study to evaluate the safety and effectiveness of Septrafilm II adhesion barrier in limiting postoperative adhesion formation to serosal tissue.
Role: Institutional Principle Investigator
Genzyme Corporation
\$31,000
2001-2003
- 7) **Study Title:** Urinary and colorectal dysfunction following supracervical & abdominal radical hysterectomy.
Role: Co-Principal Investigator
Lilly Centre for Women's Health Award
\$28,231
2003-2004
- 8) **Study Title:** A research study assessing the procedural success and device performance of the full thickness resection device (FTRD) in patients with colon and rectal polyps.
Role: Institutional Co-Investigator
Boston Scientific
\$42,427
2000-2001
- 9) **Study Title:** A prospective, randomized, multi-center, controlled evaluation of the efficacy and safety of Septrafilm bioresorbable membrane in the reduction of the incidence of bowel obstruction in general surgery.
Role: Institutional Principal Investigator
Genzyme Corporation
\$93,500
September 1998-2003
- 10) **Study Title:** A phase II, randomized, double-blind, placebo-controlled, multi-center, study of intravenous betafectin PGG-glucan for the prevention of serious infections in patients at high risk for infection following surgery for ulcerative colitis or Crohn's disease.
Role: Institutional Principle Investigator
Alpha-Beta Technology
\$62,400
May 1997-April 1998
- 11) **Study Title:** A double blind placebo-controlled dose ranging multi-center study to determine the safety and efficacy of perioperative sandostatin treatment for reduction in duration and severity of postoperative ileus.
Role: Institutional Co-Investigator
Sandoz Pharmaceuticals Corporation

\$37,500
July 1994-July 1996

- 12) **Study Title:** Postoperative ileus following completely intracorporeal versus laparoscopically-assisted versus conventional right colectomy in a canine model: a comparison based on myoelectric, transit, and clinical criteria.
Role: Co-Investigator
United States Surgical Corporation
\$38,125
1994-1995

NATIONAL / INTERNATIONAL SCIENTIFIC ORGANIZATION MEMBERSHIPS:

1988	American College of Surgeons, Fellow
1994	Society of American Gastrointestinal Endoscopic Surgeons
1997	American Society of Colon and Rectal Surgeons
	1999 – 2002 Awards Committee
	2001 – 2007 Program Committee
	2002 – 2003 Chairman of Neoplastic Subcommittee
	2003 - 2006 Quality Assessment & Safety Committee
	2011 - 2016 Rectal Cancer Coordinating Committee
	2009 - 2016 Self-Assessment Committee, Group Leader
1998	American Gastroenterologic Association
1999	Association of Academic Surgeons
2000	Society for Surgery of the Alimentary Tract
	2004 – 2007 Publications Committee
	2009 – 2011 Colon-Rectal Combined Science Program Subcommittee
	2012 - 2013 Health Care Quality and Outcomes Committee
	2015 - present Institutional Representative
2001	International Society of Digestive Surgery
2001	American Society of Colon and Rectal Surgeons, Fellow
2001	Society of Surgical Oncology
2003	American Motility Society
2003	American Society of Clinical Oncology
2004	David C. Sabiston, Jr. Surgical Society
2005	Society of University Surgeons
2007	American Medical Association
2011	Multidisciplinary International Rectal Cancer Society (MIRCS)
	2011 – present Board of Directors
2011	Central Surgical Association

LOCAL AND REGIONAL SOCIETY MEMBERSHIPS:

1996-2008	North Carolina Medical Society
2000-2008	North Carolina Chapter of the American College of Surgeons
2002-2008	Piedmont Society of Colon and Rectal Surgeons
2004-2008	North Carolina Surgical Association
2008	Wisconsin Surgical Society
2008	Milwaukee Academy of Surgery
2010	Milwaukee Surgical Society
2012	Milwaukee Academy of Medicine
2012	Milwaukee GI Society

EDITORSHIPS AND EDITORIAL BOARD MEMBERSHIPS:

2003-2009 Associate Editor: Diseases of the Colon and Rectum
 2004 Guest Editor Volume 15(1): Seminars in Colon & Rectal Surgery: Retrorectal Lesions
 2005 Guest Editor Volume 18(3): Clinics in Colon and Rectal Surgery: Colon Cancer

Ad hoc Reviewer:

American Journal of Gastroenterology
 Annals of Surgery
 Annals of Surgical Oncology
 Archives of Surgery
 Contemporary Surgery
 Journal of the American College of Surgeons
 Journal of Obstetrics and Gynecology
 Surgery
 Surgical Endoscopy
 Journal of Surgical Education

MEMBERSHIPS NATIONAL COMMITTEES, CONSULTANT GROUPS, STUDY SECTIONS:

10/2001 - 10/2007 National Comprehensive Cancer Network, Member of the Colorectal Cancer Screening Panel
 10/2001 - 10/2007 National Comprehensive Cancer Network, member of the Colon, Rectal and Anal Cancer Panel
 09/2000 – 12/2007 North Carolina Advisory Committee on Cancer Coordination and Control, Colorectal Cancer Working Group
 1999-2007 Scientific Advisory Board Member, Colon Cancer Alliance

HONORS AND AWARDS:

1991 Outstanding Junior Surgical Resident, Medical College of Wisconsin
 1992 Annual Resident Research Competition Award, Milwaukee Academy of Surgery
 1992 Alpha Omega Alpha
 1994 Outstanding Resident Surgeon, Society of Laparoendoscopic Surgeons
 1995 Annual Resident Research Forum Award, Cleveland Surgical Society
 1995 Best Video Presentation Award, Society of American Gastrointestinal Endoscopic Surgeons Annual Meeting
 1995 Annual Resident Research Forum Award, Ohio Valley Society of Colon and Rectal Surgeons
 1996 Annual Resident Research Forum Award, Cleveland Surgical Society
 1996 Outstanding Research Fellow Award, Cleveland Clinic Foundation
 1998 Best Video Presentation Award, Society of Laparoendoscopic Surgeons Annual Meeting
 1998 Young Clinician Award, American Society of Colon and Rectal Surgeons
 2006 - 2016 America's Top Doctors for Cancer, Castle Connolly
 2007 - 2017 Best Doctors in America
 2008 William Donegan Oncology Research Award
 2008 - 2017 Patients' Choice Award
 2010 - 2011 Outstanding Medical Student Teacher, Medical College of Wisconsin
 2013 America's Top Physicians for Cancer
 2014 Top Surgeon, International Association of Healthcare Professionals

PEER-REVIEWED JOURNAL PUBLICATIONS:

1. Frantzides CT, **Ludwig KA**, Burhop J, Quebbeman EJ. Laparoscopic Highly Selective Vagotomy: Technique and Case Report. *Surg Laparosc Endosc* 1992; 2(4):348-352.
2. Carlson MA, **Ludwig KA**, Cowles VE, Frantzides CT, Condon RE. Effect of Propranolol on Human Myoelectric Activity. *Surg Forum* 1992; XLIII: 155-157.
3. Frantzides CT, **Ludwig KA**, Salaymeh B. Laparoscopic Closure of Gastric Stab Wounds. *Surg Laparosc Endosc* 1993; 3:63-66.
4. **Ludwig KA**, Cattet R.P., Henry L.G. Initial Experience with Laparoscopic Appendectomy. *Dis Colon Rectum* 1993; 36(5):463-467.
5. Frantzides CT, Mathias C, **Ludwig KA**, Edmiston CE, Condon RE. Small Bowel Myoelectric Activity in Peritonitis. *Am J Surg.* 1993; 165(6):681-685.
6. Carlson MA, **Ludwig KA**, Frantzides CT, Cattet RP, Henry LG, Walker AP, Schulte WJ, Wilson SD. Routine or Selective Cholangiography in Laparoscopic Cholecystectomy. *J Laparoendoscopic Surg.* 1993; 3(1):27-33.
7. **Ludwig KA**, Carlson MA, Grade KL, Frantzides CT. Myoelectric Motility Patterns Following Open vs. Laparoscopic Cholecystectomy. *J Laparoendoscopic Surg.* 1993; 3(5):461-466.
8. Frantzides CT, **Ludwig KA**, Redlich PN. Laparoscopic Management of a Pancreatic Pseudocyst. *J Laparoendoscopic Surg* 1994; 4(1):55-59.
9. Carlson MA, **Ludwig KA**, Condon RE. Ventral Hernia and Other Complications of 1000 Midline Wounds. *South Med J* 1995; 88(4):450-453.
10. Condon RE, Cowles VE, Ferraz AAB, Carilli S, Carlson MA, **Ludwig KA**, Tekin E, Ulualp K, Ezberci F, Shoji Y, Isherwood P, Frantzides CT, Schulte WJ. Human Colonic Smooth Muscle Electrical Activity During and Following Recovery from Postoperative Ileus. *Am J Physio* 1995; 269: G408-417.
11. **Ludwig KA**, Milsom JW, Church JM, Fazio VW. Preliminary Experience with Laparoscopic Intestinal Surgery for Crohn's Disease. *Am J Surg* 1996; 171(1):52-56.
12. **Ludwig KA**, Milsom JW, Garcia-Ruiz A, Fazio VW. Laparoscopic Stoma Procedures. *Dis Colon Rectum* 1996; 39:285-288.
13. Garcia-Ruiz A, Milsom JW, **Ludwig KA**, Marchesa P. Right Colonic Arterial Anatomy. Implications for Laparoscopic Surgery. *Dis Colon Rectum* 1996; 39(8):906-911.
14. **Ludwig KA**, Aprahamian C, Bergstein JM, Wallace JR, Quebbeman EJ, Wittman DH. Shock-Associated Right Colon Ischemia and Necrosis. *J Trauma* 1996; 39:1171-1174.
15. Kim SH, Milsom JW, Church JM, **Ludwig KA**, Garcia-Ruiz A, Okuda J. Perioperative Tumor Localization for Laparoscopic Colorectal Surgery. *Surg Endosc* 1997; 10:1013-6.

16. Milsom JW, **Ludwig KA**, Church JM, Garcia-Ruiz A. Laparoscopic Total Abdominal Colectomy with Ileorectal Anastomosis for Familial Adenomatous Polyposis. *Dis Colon Rectum* 1997; 40(6):675-678.
17. Carlson MA, **Ludwig KA**, Condon RE, Schulte WJ. Management of Intrathoracic Stomach with Polypropylene Mesh Prosthesis Reinforced Hiatus Hernia Repair. *J Am Coll Surg* 1998; 187:227-230.
18. Chekan E, Westcott C, Low VHS, **Ludwig KA**. Small Bowel Intussusception and Laparoscopy. *Surg Laparosc and Endosc* 1998; 8(4):324-326.
19. Mannon PJ, Kanungo A, Mannon RB, **Ludwig KA**. Peptide YY/Neuropeptide Y Y1 Receptor Expression in the Epithelium and Mucosal Nerves of the Human Colon. *Reg Peptides* 1999; 83:11-19.
20. Onaitis MW, Noone RB, Hartwig M, Hurwitz H, Lee C, Anscher MS, Clary B, Mantyh C, Pappas TN, **Ludwig KA**, Seigler HF, Tyler DS. Rectal Tumor Response to Neoadjuvant Chemotherapy Does Not Affect Survival. *Ann of Surg* 2001; 233:778-785.
21. Onaitis MW, **Ludwig KA**, Mantyh C, Clary B, Seigler HF, Tyler DS. Complete Response to Neoadjuvant Chemoradiation for Rectal Cancer Does Not Influence Survival. *Ann Surgical Oncology* 2001; 8:801-806.
22. Lin S, Suhocki PV, **Ludwig KA**, Shetzline MA. Gastrointestinal Bleeding in Adult Patients with Meckel's Diverticulum: The Role of Technetium 99m Pentecnetate Scan. *South Med J* 2002; 95:1338.
23. NCCN Colon/Rectal/Anal Cancers Panel Members, **Ludwig KA**, Colon Cancer Clinical Practice Guidelines in Oncology. *J Nation Comp Cancer Net* 2003; 1:40-68.
24. NCCN Colorectal Cancer Screening Panel Members, **Ludwig KA**, Colorectal Cancer Screening Clinical Practice Guidelines in Oncology. *J Nation Comp Cancer Net* 2003; 1:72-93.
25. de la Fuente, SG, **Ludwig KA**, Mantyh CR. Preoperative Immune Status as a Determinant of Anal Condyloma Recurrence After Surgical Excision. *Dis Colon Rectum*. 2003; 46:367-373.
26. Kalady MF, Fields RC, Klein S, Nielson KC, Mantyh CR, **Ludwig KA**. Loop Ileostomy Closure at an Ambulatory Surgery Facility: A Safe and Cost-Effective Alternative to Routine Hospitalization. *Dis Colon Rectum* 2003; 46:486-90.
27. de la Fuente SG, Levin S, Reynolds JD, Olivares C, Pappas TN, **Ludwig KA**, Mantyh CR. Elective Stoma Construction Improves Outcomes in Medically Intractable Pressure Ulcers. *Dis Colon Rectum* 2003; 46(11):1525-30.
28. Czito B, Hong T, Cohen D, Tyler D, Lee C, Anscher M, **Ludwig KA**, Seigler H, Mantyh C, Morse M, Lockhart A, Petros W, Honeycutt W, Spector N, Ertel P, Mangum S, Hurwitz H. A Phase 1 Trial of Preoperative Eniluracil Plus 5-Fluorouracil and Radiation for Locally Advanced or Un-resectable Adenocarcinoma of the Rectum and Colon. *Int J Rad Onc Bio Phys* 2004; 58(3):779-785.

29. Fujino K, Takami Y, de la Fuente SG, **Ludwig KA**, Mantyh CR. Inhibition of the Vanilloid Receptor Subtype-1 Attenuates TNBS-Colitis. *J Gastroint Surg* 2004; 8(7):842-7; discussion 847-8.
30. Purves H, Pietrobon R, Hervey S, Guller U, Miller B, **Ludwig KA**. Relationship Between Surgeon Caseload and Sphincter Preservation in Patients with Rectal Cancer. *Dis Colon Rectum* 2005; 48:195-204.
31. Cohen Z, Senagore AJ, Daylon MT, Koruda MJ, Beck DE, Wolff BG, Fleshner PR, Thirlby RC, **Ludwig KA**, Larach SW, Weiss EG, Bauer JJ, Holmdahl L. Prevention of Postoperative Abdominal Adhesions by a Novel, Glycerol/Sodium Hyaluronate/ Carboxymethylcellulose-based Bioresorbable Membrane: A Prospective, Randomized, Evaluator-Blinded Multicenter Study. *Dis Colon Rectum* 2005. *Clinical Trial. Journal Article. Multicenter Study. Randomized Controlled Trial. Dis Colon Rectum* 2005; 48(6):1130-9.
32. Palmeri ML, Frinkley KD, Zhai L, Gottfried M, Bentley RC, **Ludwig KA**, Nightingale KR. Acoustic Radiation Force Impulse (ARFI) Imaging of the Gastrointestinal Tract. *Ultrasonic Imaging* 2005; 27:75-88.
33. Engstrom PF, Benson AB 3rd, Chen YJ, Choti MA, Dilawari RA, Enke CA, Fakih MG, Fuchs C, Kiel K, Knol JA, Leong LA, **Ludwig KA**, Martin EW Jr, Rao S, Saif MW, Saltz L, Skibber JM, Venook AP, Yeatman TJ. Colon Cancer Clinical Practice Guidelines in Oncology. *Journal of the National Comprehensive Cancer Network* 2005; 3(4):468-91.
34. Engstrom PF, Benson AB 3rd, Chen YJ, Choti MA, Dilawari RA, Enke CA, Fakih MG, Fuchs C, Diel K, Knol JA, Leong LA, **Ludwig KA**, Martin EW Jr, Rao S, Saif MW, Saltz L, Skibber JM, Venook AP, Yeatman TJ. Rectal Cancer Clinical Practice Guidelines in Oncology. *Journal of the National Comprehensive Cancer Network* 2005; 3(4):492-508.
35. Engstrom PF, Benson AB 3rd, Chen YJ, Choti MA, Dilawari RA, Enke CA, Fakih MG, Fuchs C, Kiel K, Knol JA, Leong LA, **Ludwig KA**, Martin EW Jr, Rao S, Saif MW, Saltz L, Skibber JM, Venook AP, Yeatman TJ. Anal Canal Cancer Clinical Practice Guidelines in Oncology. *Journal of the National Comprehensive Cancer Network* 2005; 3(4):510-5.
36. Levin B, Barthel JS, Burt RW, David DS, Ford JM, Giardiello FM, Gruber SB, Halverson AL, Hamilton S, Kohlmann W, **Ludwig KA**, Lynch PM, Marino C, Martin EW, Mayer RJ, Pasche B, Pirruccello SJ, Rajput A, Rao MS, Shike M, Steinbach G, Terdiman JP, Weinbert D, Winawer SJ. Colorectal Cancer Screening Clinical Practice Guidelines. *J Natl Comprehensive Ca Network* 2006; 4:384-420.
37. Fukuda H, Chen C, Mantyh C, **Ludwig K**, Pappas T, Takahashi T. The Herbal Medicine, Dai-Kenchu-To, Accelerates Delayed Gastrointestinal Transit After the Operation in Rats. *J Surg Res* 2006; 131:290-295.
38. Tsukamoto K, Nakade Y, Mantyh C, **Ludwig K**, Pappas TN, Takahashi T. Peripherally Administered CRF Stimulates Colonic Motility Via Central CRF Receptors and Vagal Pathways in Conscious Rats. *Am J Physiol Regul Integr Comp Physiol* 2006; 290(6): R1537-41.
39. Fazio VW, Cohen Z, Fleshman JW, van Goor H, Bauer JJ, Wolff BG, Corman M, Beart RW Jr, Wexner SD, Becker JM, Monson JR, Kaufman HS, Beck DE, Balley HR, **Ludwig KA**, Stamos MJ, Darzi A, Bleday R, Dorazio R, Madoff RD, Smith LE, Gearhart S, Lillemoe K, Gohl J. Reduction in Adhesive Small-Bowel Obstruction by Seprafilm Adhesion Barrier After Intestinal

- Resection. (Multicenter Study. Randomized Controlled Trial) *Dis Colon Rectum* 2006; 49(1):1-11.
40. Czito BG, Willett CG, Bendell JC, Morse MA, Tyler DS, Fernando NH, Mantyh CR, Blobe GC, Honeycutt W, Yu D, Clary BM, Pappas TN, **Ludwig KA**, Hurwitz HI. Increased Toxicity with Gefitinib, Capecitabine, and Radiation Therapy in Pancreatic and Rectal Cancer: Phase I Trial Results. *J Clin Oncol* 2006; 24(4):656-62.
 41. Onaitis M, **Ludwig K**, Perez-Tamayo A, Gottfried M, Russell L, Shaddock P, Pappas T, Seigler HF, Tyler DS. The Kraske Procedure: A Critical Analysis of a Surgical Approach for Mid-rectal Lesions. *J Surg Onc* 2006; 94(3):194-202.
 42. Wolff BG, Weese JL, **Ludwig KA**, Delaney CP, Stamos MJ, Michelassi F, Du W, Techner L. Postoperative Ileus-Related Morbidity Profile in Patients Treated with Alvimopan After Bowel Resection. *J Am Coll Surg* 2007; 204(4):609-616.
 43. Willett CG, Duda DG, Tomaso E, Boucher Y, Czito BG, Vujaskovic Z, Vlahovic G, Bendell J, Cohen K, Hurwitz HI, Bentley R, Lauwers GY, Poleski M, Wong TZ, Paulson E, **Ludwig KA**, Jain RK. Complete Pathological Response in T4 Locally Advanced Rectal Cancer After Treatment With Bevacizumab and Standard Radio-chemistry. *Nat Clin Prac Onc* 2007; 4:316-21.
 44. Reddy SK, Pawlik TM, Zorzi D, Gleisner A, Ribero D, Assumpcao L, Barbas AS, Abdalla EK, Choti MA, Vauthey J, **Ludwig KA**, Mantyh CR, Clary BM. Simultaneous Resections of Colorectal Cancer and Synchronous Liver Metastases: An Analysis of Safety and Long-Term Outcome. *Ann Surg Oncol* 2007; 14:3481-91.
 45. Czito BG, Bendell JC, Willett CG, Morse MA, Blobe GC, Tyler DS, Thomas J, **Ludwig KA**, Mantyh CR, Ashton J, Yu D, Hurwitz HI. Bevacizumab, Oxaliplatin, and Capecitabine With Radiation Therapy in Rectal Cancer: Phase I trial results. *Int J Rad Oncol Biol Phys* 2007; 68(2):472-478.
 46. Marguet C, Raj GV, Brashears JH, Anscher MS, **Ludwig K**, Mouraviev V, Robertson CN, Polascik TJ. Rectourethral Fistula After Combination Radiotherapy for Prostate Cancer. *Urology* 2007; 69(5):898-901.
 47. Engstrom PF, Arnoletti JP, Benson AB 3rd, Chen YJ, Choti MA, Cooper HS, Dilawari RA, Early DS, Fakih MG, Fuchs C, Grem JL, Kiel K, Knol JA, Leong LA, **Ludwig KA**, Martin EW Jr, Rao S, Saltz L, Shibata D, Skibber JM, Venook AP. Rectal Cancer. *J Natl Compr Canc Netw* 2007; 5(9):940-81.
 48. Engstrom PF, Arnoletti JP, Benson AB 3rd, Chen YJ, Choti MA, Cooper HS, Dilawari RA, Early DS, Fakih MG, Fuchs C, Grem JL, Kiel K, Knol JA, Leong LA, **Ludwig KA**, Martin EW Jr, Rao S, Saltz L, Shibata D, Skibber JM, Venook AP. Colon Cancer. *J Natl Compr Canc Netw* 2007; 5(9):884-925.
 49. Phitayakorn R, Delaney CP, Reynolds HL, Champagne BJ, Heriot AG, Neary P, Senagore AJ; International Anastomotic Leak Study Group. Collaborators (47) Phitayakorn R, Delaney CP, Reynolds HL, Champagne BJ, Heriot AG, Neary P, Senagore AJ, Ambrosetti P, Bailey C, Bailey C, Billingham RP, Braga M, Buie WD, Darzi AW, Douglas PR, Dozois EJ, Fearnhead NS, Frizelle FA, Gearhart SL, Gonzalez QH, Tlalpan SZ, Haaga JR, Harris GJ, Horgan AF, Horgan PG, Kehlet H, Kim SH, Lacy AM, Leroy J, López-Kostner F, **Ludwig KA**, Marks J, Megibow AJ, Merlino JJ, Monson JR, Motson RW, Nakamoto DA, Newstead GL, O'Connell PR, Panis Y,

- Penninckx F, Rajput A, Seow Choen F, Stamos MJ, Vignali A, Wexner SD, Wong KS. Standardized Algorithms for Management of Anastomotic Leaks and Related Abdominal and Pelvic Abscesses After Colorectal Surgery. *World J Surgery* 2008; 32(6):1147-56.
50. Follmar KE, Condron SA, Turner II, Nathan JD, **Ludwig KA**, Treatment of Metronidazole-Refractory Clostridium Difficile Enteritis with Vancomycin. *Surg Infect* 2008; 9(2):195-200.
 51. Lee WY, Takahashi T, Pappas T, Mantyh CR, **Ludwig KA**. Surgical Autonomic Denervation Results in Altered Colonic Motility: An Explanation for Low Anterior Resection Syndrome? *Surgery* 2008; 143(6):778-83.
 52. Kalady MF, Mantyh CR, Petrofski J, **Ludwig KA**. Routine Contrast Imaging of Low Pelvic Anastomosis Prior to Closure of Defunctioning Ileostomy: Is It Necessary? *J Gastrointest Surg* 2008; 12(7):1227-31.
 53. Taniguchi H, Ariga H, Zheng J, **Ludwig K**, Mantyh C, Pappas TN, Takahashi T. Endogenous Ghrelin and 5-HT Regulate Interdigestive Gastrointestinal Contractions in Conscious Rats. *Am J Physiol Gastrointest Liver Physiol* 2008; 295(2): 403-11.
 54. **Ludwig KA**, Enker WE, Delaney CP, Wolff BG, Wei Du, Fort JG, Cherubini M, Cucinotta J, Techner L. Gastrointestinal Recovery in Patients Undergoing Bowel Resection: Results of a Randomized Trial of Alvimopan and Placebo with a Standardized Accelerated Postoperative Care Pathway. *Arch Surg* 2008; 143:1098-1105.
 55. Taniguchi H, Ariga H, Zheng J, **Ludwig K**, Takahashi T. Effects of Ghrelin on Interdigestive Contractions of the Rat Gastrointestinal Tract. *World J Gastroenterol* 2008; 14(41):6299-6302.
 56. Zheng J, Ariga H, Taniguchi H, **Ludwig K**, Takahashi T. Ghrelin Regulates Gastric Phase III-like Contractions in Freely Moving Conscious Mice. *Neurogastroenterology & Motility* 2009; 21(1):78-84.
 57. de la Fuente SG, Manson RJ, **Ludwig KA**, Mantyh CR. Neoadjuvant Chemoradiation for Rectal Cancer Reduces Lymph Node Harvest in Proctectomy Specimens. *J Gastrointest Surg* 2009; 13(2):269-274.
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NON-PEER REVIEWED/ INVITED PUBLICATIONS:

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6. Kalady MF, **Ludwig KA**. Presacral Developmental Cysts. *Seminars in Colon and Rectal Surgery* 2004; 15(1):12-18.

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24. **Ludwig KA,** Vargas HD. Right Hemicolectomy – Hand Assisted Laparoscopic Surgery. In: O'Connell PR, Madoff RD, Solomon MJ, eds. Operative Surgery of Colon, Rectum and Anus. Boca Raton, FL: CRC Press. 2015.
25. **Ludwig KA,** Ridolfi TJ. Right Colectomy – Hand Assist. In: Ross HM, Lee SW, Mutch MG, Rivadeneira DE, Steele SR, eds. Minimally Invasive Approaches to Colon and Rectal Disease. New York: Springer. 2015.
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27. Ridolfi TJ, **Ludwig KA.** Anal Carcinoma. In: Fazio VW, Church JM, Delaney CP, Kiran RP, eds. Current Therapy in Colon and Rectal Surgery. Philadelphia: Elsevier. 2017.

OTHER SCIENTIFIC CONTRIBUTIONS:

INVITED LECTURES AT NATIONAL AND INTERNATIONAL MEETINGS:

1. Pelvic Anatomy and Steps of TME – Postgraduate Course: Total Mesorectal Excision – Optimizing Surgery and Managing Challenges. Society of American Gastrointestinal Endoscopic Surgeons (SAGES) Annual Meeting. Seattle, Washington, April 11, 2018.

2. Parastomal Hernia Repair – Local Repair versus Stoma Resite. American Society of Colon and Rectal Surgeons (ASCRS) Annual Scientific Meeting. Boston, Massachusetts, May 31, 2015.
3. The Problematic Low Rectal Anastomosis: Dealing with Stacking, Stenosis, Bleeding and Disruption. American Society of Colon and Rectal Surgeons (ASCRS) Annual Scientific Meeting. Boston, Massachusetts, May 31, 2015.
4. Rectal Cancer: Difficult Cases and Controversies. American Society of Colon and Rectal Surgeons (ASCRS) Annual Scientific Meeting. Meet the Professor Breakfast. Boston, Massachusetts, June 2, 2015.
5. Early Ambulation and Nutrition – How to Make it Happen. Society for Surgery of the Alimentary Tract (SSAT) Annual Meeting / Digestive Disease Week. Washington, DC, May 19, 2015.
6. Technical Aspects of Low Anterior Resection and the Challenge of Reconstruction Options. Society for Surgery of the Alimentary Tract (SSAT) Annual Meeting / Digestive Disease Week. Washington, DC, May 18, 2015.
7. Bottoms Up Total Mesorectal Excision (TME): What, How and Why? Minimally Invasive Surgery Symposium. Las Vegas, Nevada, February 25, 2015.
8. Embryologic Basis of Colorectal Anatomy and How it Relates to Colorectal Surgery. Minimally Invasive Surgery Symposium. Las Vegas, Nevada, February 25, 2015.
9. What is the Risk of Deep Vein Thrombosis (DVT) in Laparoscopic Colorectal Patients: Evidence to Prevent it? Minimally Invasive Surgery Symposium. Las Vegas, Nevada, February 25, 2015.
10. Prevention of Ileus and PONV: What’s New. American College of Surgeons Clinical Congress. San Francisco, California, October 29, 2014.
11. It Just Won’t Reach: Laparoscopic Pouch Lengthening Techniques. American society of colon and Rectal Surgeons (ASCRS) Annual Scientific Meeting. Hollywood, Florida, May 18, 2014.
12. Managing the Perineal Wound. American Society of Colon and Rectal Surgeons (ASCRS) Annual Scientific Meeting. Hollywood, Florida, May 18, 2014.
13. Essential Anatomy/Relationships/Danger Areas for Laparoscopic Colonic Surgery Minimally Invasive Surgery Symposium. Las Vegas, Nevada, February 26, 2014.
14. Anatomy, Component Steps and Video Demonstration of a Total Mesorectal Excision for Rectal Cancer. Minimally Invasive Surgery Symposium. Las Vegas, Nevada, February 26, 2014.
15. Hand Assisted Left Colectomy: Advantages and Disadvantages. Minimally Invasive Surgery Symposium. Las Vegas, Nevada, February 26, 2014.
16. Is the Hartmann’s Procedure Dead? Data Regarding Observation/Who Should Be Operated On/What Should Be Done? Minimally Invasive Surgery Symposium. Las Vegas, Nevada, February 26, 2014.
17. How to Improve the Quality and the Results of the Laparoscopic Colorectal Anastomosis. Society of American Gastrointestinal Endoscopic Surgeons (SAGES) Annual Meeting. Baltimore, Maryland, April 17, 2013.

18. MIS Approaches to the Deep Pelvis for TME: Hand Assisted Approach. Society of American Gastrointestinal Endoscopic Surgeons (SAGES) Annual Meeting. San Diego, California, March 7, 2012.
19. The Role of Local Excision for Rectal Cancer: When Is It Appropriate? Wisconsin Surgical Society Annual Meeting. Kohler, Wisconsin, November 5, 2011.
20. Elective Resection for Diverticulitis: Optimal technique, Outcomes, and Rate of Recurrence. Why Not Surgery? ASCRS Annual Scientific Meeting. Symposium on Advances in the Management of Diverticulitis. Vancouver, BC, May 17, 2011.
21. Surgery for Crohn's Disease. Digestive Disease Week SSAT/ASCRS Joint Symposium: Surgery for Inflammatory Bowel Disease. Chicago, Illinois, May 9, 2011.
22. Low Anterior Resection Syndrome: Physiology and Treatment. Korea University College of Medicine, Korea University Anam Hospital, Seoul, Korea, December 1, 2010.
23. Sphincter Sparing Resection Strategies for Low Rectal Cancer. 2010 National Conference of New Techniques of Basic and Clinical Research of Constipation & International Colorectal Surgery Forum. Hangzhou, China, November 27, 2010.
24. Hand-Assisted Laparoscopic Colorectal Surgery: An Alternative That Works. 2010 National Conference of New Techniques of Basic and Clinical Research of Constipation & International Colorectal Surgery Forum. Hangzhou, China, November 27, 2010.
25. Laparoscopic Right Colectomy: Straight Lap and HALS. American College of Surgeons 2010 Clinical Congress, Washington, DC, October 3, 2010.
26. Accelerated Pathways. Meet the Professor Breakfast. American Society of Colon and Rectal Surgeons Annual Scientific Meeting, Minneapolis, MN, May 19, 2010.
27. Panelist: Clinical Ward Rounds: Managing Ostomy Complications. Society of Surgery of the Alimentary Tract Annual Meeting, SSAT/DDW New Orleans, LA, May 3, 2010.
28. Laparoscopy for Crohn's Colitis – Total Abdominal Colectomy vs. Segmental Resection. SAGES World Congress of Endoscopic Surgery, Washington, DC, April 15, 2010.
29. Hand-Assisted Right Colectomy. American College of Surgeons 2009 Clinical Congress Skills Course, Chicago, Illinois, October 12, 2009.
30. Endoscopic Surgery in Crohn's and Ulcerative Colitis.
 Future of Colorectal Laparoscopic Surgery.
 Resident Training in Colorectal Laparoscopic Surgery.
 Endoscopic Surgery in Colon Cancer.
 Right Hemicolectomy Endoscopic Surgery.
 International Congress of the Mexican Association of Endoscopic Surgery, Acapulco Guerrero, Mexico, August 6 and 7, 2009.

31. HALS Left/Sigmoid Colectomy; Hepatic Flexure: Retrograde Starting at the Transverse Colon. The American Society of Colon & Rectal Surgeons Annual Scientific Meeting, Hollywood, Florida, May 2 and 3, 2009.
32. Laparoscopic Colorectal Surgery. American College of Surgeons 94th Annual Clinical Congress, San Francisco, CA, October 12, 2008.
33. Challenges in the Treatment of Rectal Cancer. Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) Annual Meeting. Philadelphia, PA, April 9-12, 2008.
34. Hypercapnia and MIS-Related Anesthetic Problems; Obesity-Related Colorectal MIS Issues; Fast Track Open Surgery: MIS Colorectal Applications; SBO after APR: Prevention and Treatment; New Endoscopic and Videoscopic Intervention and Surgery. Advances in Minimally Invasive Bariatric, Colorectal and NOTES Procedures, Four Seasons Resort Charlestown, Nevis, West Indies, January 18 and 19, 2008.
35. Tips for Surgical Repair of ECF/Complex Abdominal Fistula. American College of Surgeons 93rd Annual Clinical Congress, New Orleans, LA, October 7-11, 2007.
36. Complex Perineal Disease. American College of Surgeons 92nd Annual Clinical Congress, Chicago, IL, October 8-12, 2006.
37. Update on Bowel Obstruction. WOCN Society 38th Annual Conference, Minneapolis, MN, June 24-25, 2006.
38. Totally Laparoscopic vs. Hand Assisted Laparoscopic Colectomy. SAGES & IPEG 2006 Scientific Sessions & Postgraduate Courses, Dallas, TX, April 27, 2006.
39. Current Surgical Treatment of Crohn's Disease. SAGES/ACS Joint Session on Inflammatory Bowel Disease, Dallas, TX, April 26, 2006.
40. The Case for Laparoscopic Oncologic Sigmoid Colon Cancer Resection. Why This Operation Should Be Performed Laparoscopically. SSAT/SAGES Joint Symposium/ DDW 2005, Chicago, IL, May 18, 2005.
41. Surgical Anatomy: Major Vessels, Embryologic Fusion, Planes, and Related Organs. Society of American Gastrointestinal Endoscopic Surgeons (SAGES) Annual Meeting. Ft Lauderdale, FL, April 2005.
42. Total Mesorectal Excision for Rectal Cancer: What, Why and How. Laparoscopic Colectomy, Comparable to Conventional Oncologic Surgery? International Conference on Surgical Oncology, New Delhi, India, February 24-26, 2005.
43. The Complete Pathological Response: An Analysis of Radically Operated Specimens; Ex Vivo Full Thickness Local Excision Trial. Total Mesorectal Excision: What Does it Mean to the Expert Rectal Cancer Surgeon? 2nd International Rectal Cancer Consensus Conference, Lankenau Hospital & Lankenau Institute for Medical Research, Wynnewood, PA, December 10, 2004.

44. Management of Locoregional Rectal Cancer. NCCN (National Comprehensive Cancer Network) Colon, Rectal, and anal Cancers Guidelines Symposium, Host Institution: Memorial Sloan-Kettering Cancer Center, New York NY, September 23, 2004.
45. The Ileal Pouch Anal Anastomosis: Is It Deteriorating with Time? Postgraduate Course, Practical Issues in Managing Colorectal Diseases, Society of Surgery of the Alimentary Tract (SSAT) Annual Meeting, New Orleans, LA, May 16, 2004.
46. Surgical Management of Colon and Rectum in Familial Adenomatous Polyposis. Postgraduate Course on Pediatric Surgery: Polyposis Syndromes. American College of Surgeons Annual Clinical Congress, Chicago, IL, October 22. 2003.
47. The Surgeon as a Prognostic Factor in Sphincter Preserving Resections for Rectal Cancer. St. Joseph Krankenhaus, Colorectal Cancer Update Symposium, Berlin, Germany, May 16 and 17, 2003.
48. Room Set-up and Port Arrangement for Laparoscopic Colectomy. Laparoscopic Colorectal Hands-on Post Graduate Course, Society of American Gastrointestinal Endoscopic Surgeons Annual Meeting, Los Angeles, CA, March 12, 2003.
49. Laparoscopic Colorectal Surgery Course. American Society of Colon and Rectal Surgeons, Washington University, St. Louis, MI, December 8, 2001.
50. Small Bowel Obstruction. Colorectal Surgery Post Graduate Course, American College of Surgeons Annual Meeting, New Orleans, LA, October 11, 2001.
51. Laparoscopic Colorectal Surgery Course. American Society of Colon and Rectal Surgeons, New England Baptist Hospital. Boston, MA, January 13, 2001.
52. Laparoscopic Colorectal Surgery. International Symposium, Hamburg, Germany, November 20-22, 2000.
53. Management of Colorectal Disease. SAGES Annual Scientific Meeting, Meet the Professor Lunch, April 1, 2000.
54. Hand-Assisted Colorectal Resection. SAGES Annual Scientific Meeting, Atlanta, GA March 31, 2000.
55. Laparoscopic Stoma Creation and Closure. Endoscopic Management of Colorectal Disease Postgraduate Course, Society of American Gastrointestinal Endoscopic Surgeons (SAGES) Annual Scientific Meeting, Atlanta, GA, March 29, 2000.
56. Laparoscopic Right Hemicolectomy.
Laparoscopic Proctosigmoidectomy.
Laparoscopic Colorectal Surgery for Benign Disease.
Laparoscopic Colorectal Surgery for Malignant Disease: The U.S. Experience.
Second International Congress of Advances in Laparoscopic Surgery of the Colon and the Stomach. Sala Convegni Ospedale S. Camillo, Treviso, Italy, November 29 and 30, 1996.

INVITED LECTURES:

1. Radiotherapy for Rectal Cancer: Questioning the Dogma. 4th Annual Chicago Colorectal Symposium, Chicago, IL, April 2, 2016.
2. Surgical Management of IBD. Medical Staff Education Program, Community Memorial Hospital. Menomonee Falls, Wisconsin, February 6, 2015.
3. Low Anterior Resection Syndrome: From Bedside to Bench. Cleveland Clinic Foundation Distinguished Alumni Lecture. Cleveland, Ohio, November 1, 2013.
4. Low Anterior Resection Syndrome: From Bedside to Bench. Visiting Professor. Chicago Medical School at Rosalind Franklin University of Medicine and Science. Advocate Lutheran General Hospital, Chicago, Illinois, August 27, 2013.
5. State of the Art in Rectal Cancer Surgery. Tumor Board – Theda Clark Medical Center, Neenah, WI, November 19, 2009.
6. Total Mesorectal Excision. Milwaukee Surgical Society Meeting, Milwaukee, WI. November 2, 2009.
7. Laparoscopic Colorectal Surgery: The Data, The Bias, and What is Next. Milwaukee Academy of Surgery Meeting, Milwaukee, WI, September 28, 2009.
8. Postoperative Ileus: Can We Prevent It, Can We Treat It and What if it is Really a Small Bowel Obstruction? Department of Surgery Grand Rounds, Medical College of Wisconsin, Milwaukee, WI, December 3, 2008.
9. Colorectal Cancer Screening Guidelines and Treatment. Wisconsin Academy of Physician Assistants Fall Conference, Appleton, WI, October 17, 2008.
10. State of the Art in Sphincter Sparing Resection for Rectal Cancer. University of Kentucky, Department of Surgery, October 3, 2008.
11. Laparoscopic Colorectal Cancer Surgery: Where We Stand. CME presentation, Appleton Medical Center, Appleton, Wisconsin, September 16, 2008.
12. Colorectal Cancer Screening. St. Mary's Hospital, Milwaukee, Wisconsin, September 9, 2008.
13. Laparoscopic Surgery for Colorectal Cancer. CME presentation, Watertown Memorial Hospital, Watertown, WI, September 4, 2008.
14. Diverticular Disease. Staff Rounds, Columbia Hospital, Milwaukee, WI, June 24, 2008.
15. Rectal Cancer. Tumor Board, Kenosha Hospital, Kenosha, WI, June 24, 2008.
16. Laparoscopic Colorectal Cancer Surgery: Where We Stand. St. Agnes Hospital, Fond du Lac, WI, June 12, 2008.

17. Sphincter Sparing Techniques for Rectal Cancer. Staff Rounds. St. Nicholas Hospital, Sheboygan, WI, June 3, 2008.
18. Surgical Autonomic Denervation Results in Altered Colonic Motility: An Explanation for Low Anterior Resection Syndrome? Department of Surgery Grand Rounds, Medical College of Wisconsin, Milwaukee, WI, May 28, 2008.
19. Surgical Advances in Rectal Cancer. Perspectives in Colorectal Cancer, Charleston, SC, February 8-9, 2008.
20. Current Concepts in the Diagnosis and Treatment of Diverticulitis. Department of Surgery Grand Rounds, Medical College of Wisconsin, Milwaukee, WI, December 19, 2007.
21. Management of Rectal Cancer; Coastal AHEC Management of Colorectal Cancer. Annual Meeting of the NC Chapter of the American College of Surgeons, Wilmington, NC, December 6, 2007.
22. Sphincter Sparing Strategies for Rectal Cancer. Milwaukee Gut Club Meeting, Milwaukee, WI, November 8, 2007.
23. Colorectal Cancer – Screening and Surgical Management. The North Carolina Advisory Committee on Cancer Coordination and Control, Research Triangle Park, NC, July 27, 2007.
24. Laparoscopic Colorectal Cancer Surgery: Where We Stand. North Carolina Chapter, American College of Surgeons Meeting, Asheville, NC, July 6-7, 2007.
25. Rectal Cancer Surgery.
Laparoscopic Colorectal Surgery.
Surgery Future 2007, Pune, India, May 11-13, 2007.
26. Sphincter Sparing Resection for Rectal Cancer and Related Issues. Division of Gastroenterology Grand Rounds, Medical College of Wisconsin, Milwaukee, WI, April 23, 2007.
27. Sphincter Sparing Resection for Rectal Cancer. Department of Surgery Grand Rounds, Medical College of Wisconsin, Milwaukee, WI, March 14, 2007.
28. Rectal Cancer Surgery: Saving the Sphincters. Surgical Grand Rounds, Brody School of Medicine at East Carolina University, Greenville, NC, February 14, 2007.
29. Hand-assisted Right Colectomy Video: Could a Laparoscopic Procedure be Any Easier? Northeastern Society of Colorectal Surgeons Annual Meeting, Palm Beach, FL, November 5-8, 2006.
30. Hand-Assisted Versus Standard Laparoscopic Versus Open Right Colectomy. The Duke Experience. Northeastern Society of Colorectal Surgeons Annual Meeting, Palm Beach, FL, November 5-8, 2006.
31. Multimodality Management of Colorectal Cancer. Virginia Oncology Associates 7th Annual Hampton Roads Fall Oncology Education Conference – New Developments in Oncology, Virginia Beach, VA, October 20-22, 2006.

32. Surgical Approaches to Rectal Cancer. NCCN Clinical Practice Guidelines on Oncology Symposium: Colon, Rectal, & Anal Cancers, Duke University Medical Center, September 14, 2006.
33. Surgical Management of Rectal Cancer. Duke Radiation Oncology Symposium, Duke University Medical Center, May 6, 2006.
34. Laparoscopic Colon Cancer Surgery. Gastroenterology Grand Rounds, Duke University Medical Center, March 9, 2006.
35. Surgical Heroes and Influences. Baron's Surgical Society Annual Meeting, Cary, NC, February 25, 2006.
36. Hemorrhoids, Fissures and Other Common Anal Problems. Wake AHEC, NC State University Student Health, Raleigh, NC, December 13, 2005.
37. Management of Rectal Cancer. Emerging Issues in Thoracic, Breast, Ovarian and Prostate Oncology. The Greenbrier, White Sulphur Springs, WV, September 30- October 1, 2005.
38. Laparoscopic Colon Cancer Surgery; Reconstruction After Anterior Resection and the Anterior Resection Syndrome. 2nd Annual Laparoscopic Colorectal Surgery Course and 26th Annual Turnbull Symposium, The Cleveland Clinic, Cleveland, OH, September 28, 2005.
39. Sphincter Preserving Resection for Rectal Cancer. Department of Surgery Grand Rounds, University of Missouri- Columbia, Columbia, MO, August 17, 2005.
40. Rectal Cancer Surgery in My Time at Duke. Department of Colorectal Surgery Teaching Conference, Cleveland Clinic Foundation, Cleveland, OH, May 17, 2005.
41. Advances in the Surgical Treatment of Colon and Rectal Cancer. William J. Smith Memorial Oncology Conference, Asheville, NC, April 29, 2005.
42. Current Surgical Management of Rectal Cancer. Department of Radiation Oncology Grand Rounds, Duke University Medical Center, Durham, NC, March 23, 2005.
43. Current Treatment of Rectal Cancer. Waukesha Memorial Hospital, Cancer Center Grand Rounds, Waukesha, WI, September 28, 2004.
44. Sphincter Preserving Resection for Rectal Cancer. Roswell Park Cancer Institute, Buffalo, NY, June 15, 2004.
45. Rectal Cancer Surgery: The Second Century. University of Oklahoma, Cancer Center Rounds, Oklahoma City, OK, March 24, 2004.
46. Surgical Management of Rectal Center. SR AHEC CME Presentation, Fayetteville, NC, January 20, 2004.
47. Current Management of Rectal Cancer. North Carolina Chapter of the American College of Surgeons, GI Malignancy Symposium, Durham, NC, October 3, 2003.

48. Quality of Life Following Low Anterior Resection vs. Abdominal Perineal Resection for Rectal Cancer: A Case for Sphincter Preservation. North Carolina Surgical Association Meeting, Southern Pines, NC, April 26, 2003.
49. Sphincter Preserving Options for Rectal Cancer: Avoiding a Permanent Colostomy. Sandhills Regional Medical Center, Hamlet, NC, April 21, 2003.
50. Sphincter Saving Strategies for Rectal Cancer. Maria Parham Hospital, Henderson, NC, January 7, 2003.
51. Colon Cancer Genetics: Inherited Colorectal Cancer Syndromes. Wake Medical Center, Medical Grand Rounds, Raleigh, NC, October 1, 2002.
52. Colon Cancer Screening. Person County Hospital, Roxboro, NC, March 19, 2002.
53. Colon Cancer: Identifying High Risk Patients. Sandhill Regional Medical Center, Hamlet, NC, March 18, 2002.
54. Outpatient Loop Ileostomy Closure. North Carolina Surgical Association, Hot Springs, VA, September 28, 2002.
55. Quality of Life in Rectal Cancer Patients Treated with Low Anterior Resection vs. Abdominal Perineal Resection. Piedmont Society of Colon and Rectal Surgeons, Ft. Lauderdale, FL, March 15, 2002.
56. Colon Cancer: FAP and HNPCC. Maria Parham Hospital, Henderson, NC, January 22, 2002.
57. Colon Cancer Screening. Four County Medical Society Meeting, Oxford, NC December 5, 2001.
58. Laparoscopic Management of Crohn's Disease. North East Society of Colorectal Surgeons Meeting, West Palm Beach, FL, November 5, 2001.
59. Cancer Genetics: FAP, HNPC: Current Screening, Surgical Options and Chemo Prevention. Duke Comprehensive Cancer Center, Fall Cancer Conference, Pinehurst, NC, October 13, 2001.
60. A Call to Action: Colon Cancer Screening. Grace Hospital, Morganton, NC, September 20, 2001.
61. Common Anorectal Disorders. Halifax Regional Medical Center, South Boston, VA, September 18, 2001.
62. Colon Cancer Screening & Genetics. Franklin Regional Medical Center, Louisburg, NC, September 18, 2001.
63. Surgical Treatment of Inflammatory Bowel Disease. Crohn's and Colitis Foundation Symposium, University of North Carolina – Chapel Hill, Chapel Hill, NC, March 10, 2001.
64. Rectal Cancer Surgery in the Year 2000. Waukesha Memorial Hospital, Cancer Center Grand Rounds, Waukesha, WI, October 17, 2000.

65. Alternatives to APR for Rectal Cancer. Naples Community Hospital Cancer Center Grand Rounds, Naples, FL, September 27, 2000.
66. Sphincter Preserving Surgery for Rectal Cancer. North Carolina Surgical Association Meeting, White Sulphur Springs, WV, September 22, 2000.
67. Colon Cancer Update. Wake Medical Center Internal Medicine Grand Rounds, Raleigh, NC, September 5, 2000.
68. Neoadjuvant Therapy for Locally Advanced Rectal Cancer. Piedmont Society of Colon and Rectal Surgeons Meeting, White Sulphur Springs, WV, August 11, 2000.
69. Surgical Treatment for Rectal Cancer. Johnston County Medical Society, Smithfield, NC, March 14, 2000.
70. Sphincter Preserving Techniques for Rectal Cancer. Rex Hospital Cancer Center, Grand Rounds, Raleigh, NC, March 7, 2000.
71. Laparoscopic Colorectal Surgery. Duke/US Surgical Endosurgery Center, Meeting of the Americas, Duke University Medical Center, Durham, NC, October 6, 1999.
72. Sphincter Preserving Techniques for Rectal Cancer. Moore Regional Hospital, Pinehurst, NC, May 27, 1999.
73. Diagnosis and Management of Fecal Incontinence. Hamlet Hospital, Hamlet, NC, May 20, 1999.
74. Diagnosis and Management of GI Obstruction. Granville Medical Center, Oxford, NC, May 18, 1999.
75. Office Management of Hemorrhoids. Maria Parham Hospital, Henderson, NC, February 9, 1999.
76. Anastomotic Leak: Diagnosis and Management. Maria Parham Hospital, Henderson, NC, March 1, 1998.
77. Familial Adenomatous Polyposis. Duke University Medical Center, Department of Surgery Grand Rounds, Durham, NC, February 25, 1998.
78. Local Excision of Rectal Cancer. Cabarrus County Hospital Teleconference, Concord, NC, February 12, 1998.
79. Laparoscopic Intestinal Surgery. The Cleveland Clinic Foundation, Department of Colorectal Surgery, Visiting Faculty, Course Instructor, Cleveland, OH, April 11, 1997.
80. Diagnosis and Management of Acute Diverticulitis. Maria Parham Hospital, Henderson, NC, October 7, 1997.
81. Laparoscopic Colorectal Surgery. Casa di Cura San Lorenzinom, Cesena, Italy, December 2, 1996.
82. Fecal Incontinence: Evaluation and Management. Duke University Medical Center, Department of Surgery Grand Rounds, Durham, NC, December 4, 1996.

83. Surgery for Rectal Cancer. Cabarrus County Hospital Teleconference, Concord, NC, November 14, 1996.
84. Preliminary Experience with Laparoscopic Intestinal Surgery for Crohn's Disease. Cleveland Surgical Society, Annual Resident Research Forum, Cleveland, OH, March 1995.
85. Intra-abdominal Canine Anatomy, Laparoscopic Right Colectomy with Intracorporeal Anastomosis, and Laparoscopic Total Abdominal Colectomy with Intracorporeal Ileorectal Anastomosis. The Cleveland Clinic Foundation, Department of Colorectal Surgery, Laparoscopic Intestinal Surgery Course, November 4 and 5, 1994.
86. Laparoscopic Highly Selective Vagotomy for Peptic Ulcer Disease: Recent Studies on Human Colonic Myoelectric Activity. Annual Spring Meeting of the Wisconsin Surgical Society, Milwaukee, WI, April 15, 1994.
87. Recurrent Crohn's Disease. Medical College of Wisconsin, Department of Surgery Grand Rounds, Milwaukee, WI, November 1993.
88. Right Colon Ischemia Following Trauma. Medical College of Wisconsin, Department of Surgery Grand Rounds, Milwaukee, WI, November 1992.
89. Postoperative Myoelectric Motility Patterns in Open Versus Laparoscopic Cholecystectomy. Milwaukee Academy of Surgery, Milwaukee, WI, March 1992.
90. Disseminated Candida Infection in the Surgical Patient. Medical College of Wisconsin, Department of Surgery Grand Rounds, Milwaukee, WI, March 1991.

TEACHING ACTIVITIES:

1. Session Moderator: Symposium: Clinical Trials in Rectal Cancer. American Society of Colon and Rectal Cancer Surgeons (ASCRS) Annual Scientific Meeting. Seattle, Washington. June 14, 2017.
2. Rectal Cancer Management in 2017: changing landscapes. St. Vincent Hospital Oncology Grand Rounds. Green Bay, WI, February 3, 2016.
3. Elective Resection for Diverticulitis.
Managing the Perineal Wound after APR.
Ileal Pouch Surgery in the Era of Biologics.
MCW Hernia, Foregut, and Colorectal Review Milwaukee, WI, September 23, 2016.
4. Activity Director. Hernia, Foregut, and Colorectal Review. Medical College of Wisconsin Continuing Education Program. Milwaukee, WI, September 23, 2016.
5. Colorectal Cancer: Current Screening and Management. Watertown Hospital Staff Rounds. Watertown, WI, September 14, 2016.
6. Session Moderator: Symposium: Rectal Cancer II. American Society of Colon and Rectal Surgeons (ASCRS) Annual Scientific Meeting. Los Angeles, CA, May 4, 2016.

7. Functional Outcomes after Sphincter Sparing Rectal Cancer Surgery: can they be improved? Multidisciplinary International Rectal Cancer Symposium. Philadelphia, PA, September 11, 2015.
8. Session Moderator: Symposium: Challenges and Controversies: Surgical Management of Advanced Disease and Recurrent Cancer. American Society of Colon and Rectal Surgeons (ASCRS) Annual Scientific Meeting. Boston, Massachusetts, June 3, 2015.
9. Diet Advancement, Gut Motility and the Ability to Advance Diets Without Waiting for Bowel Sounds. Grand Rounds, Kenosha Medical Center, Kenosha, WI, October 14, 2015.
10. Surgical Management of UC in the Era of Biologics. IBD Update. Milwaukee, Wisconsin, March 15, 2014.
11. Panel Discussant, IBD Update. Milwaukee, Wisconsin, March 15, 2014.
12. Gaining Control: Evaluation and Management of Fecal Incontinence - Community Education. St. Joseph's Hospital, West Bend, WI, May 7, 2013.
13. Colon and Rectal Cancer in 2013: Minimally Invasive Surgery, Avoiding Surgery and Selecting Less Therapy. Updates in Gastrointestinal Oncology CME Program. Froedtert and the Medical College of Wisconsin. Milwaukee, WI, March 23, 2013.
14. Colorectal Surgery Today and Tomorrow. Brewing Up Knowledge – North Central Region of WOCN Conference. Waukesha, Wisconsin, September 20, 2013.
15. Session Moderator: Inflammatory Bowel Disease Case Presentations. Central Surgical Association Annual Meeting. Madison, WI, March 1, 2012.
16. Invited Discussant: Renal Transplant Status in Patients Undergoing Colorectal Surgery: Is Immunosuppression Safer Than Kidney Disease?
 Invited Discussant: Integration of Open and Laparoscopic Approaches for Rectal Cancer Resection: Oncologic and Short-Term Outcomes
 Invited Discussant: CD 133+ and CXCR4+ Colon Cancer Cells as a Marker for Lymph Node Metastasis. Central Surgical Association Annual Meeting. Madison, WI, March 2, 2012.
17. Gaining Control of Fecal Incontinence - Community Education. Froedtert Memorial Lutheran Hospital, Milwaukee, WI, November 3, 2011.
18. Panelist: Colorectal Cancer Case Discussion. Cleveland Clinic Turnbull Symposium. Cleveland, Ohio, September 23, 2011.
19. SAGES Advanced Laparoscopic Colectomy Surgery Workshop, Covidien Training Facility, Norwalk, Connecticut, November 5 and 6, 2009.
20. Laparoscopic Colectomy Fresh Tissue Course. Legacy Research and Technology Center, Portland, Oregon, December 6, 2008.
21. SAGES Advanced Laparoscopic Colectomy Surgery Workshop, Covidien Training Facility, Norwalk, Connecticut, November 13 and 14, 2008.

22. Hand-Assisted Laparoscopic Colectomy Course, University of Kentucky, Lexington, Kentucky, October 4, 2008.
23. Laparoscopic Colon Workshop. Duke University Medical Center, Durham, NC, September 13-14, 2007.
24. Laparoscopic Colon Course. Tyco Healthcare/United States Surgical Corporation, Norwalk, CN, July 29-20, 2007.
25. Valleylab Laparoscopic Colectomy Course. Wellstar Kennestone Hospital, Moderator: Live Case – Left Hemicolectomy; Update on Laparoscopic Colectomy for Cancer; Hand Assisted Approaches to Laparoscopic Colon Surgery; Totally Laparoscopic vs Hand Assisted, Marietta, GA, June 28-29, 2007.
26. Laparoscopic Colon Workshop. Duke University Medical Center, Durham, NC, March 28-29, 2007.
27. Hand-assisted Right Colectomy. Laparoscopic Colon Workshop, Tyco Healthcare/United States Surgical Corporation, Norwalk, CN, November 9, 2006.
28. Session Moderator: Rectal Cancer Surgeon Volume and Sphincter Preservation: The Volume-Outcome Relationship. Northeastern Society of Colorectal Surgeons Annual Meeting, Palm Beach, FL, November 5-8, 2006.
29. Hand-assisted Right Colectomy. Fellows Colon Course, Tyco Healthcare/United States Surgical Corporation, Norwalk, CN, October 18-19, 2006.
30. Session Moderator, Scientific Program: Rectal Cancer II. The American Society of Colon and Rectal Surgeons Annual Meeting, Seattle, WA, June 3-7, 2006.
31. Laparoscopic Colectomy. Minimally Invasive Access Program – Laparoscopic Colon Course, Duke University Medical Center, Durham, NC, February 2-3, 2006.
32. Panel Discussant: Radical Sphincter Preservation Surgery Following Neoadjuvant Therapy. Panel Discussant: Neoadjuvant Therapy for Rectal Cancer. Panel Discussant: Management of the Neoadjuvant Complete Responder, Third International Rectal Cancer Consensus Conference, Wynnwood, PA, December 1-3, 2005.
33. Laparoscopic Colectomy. Minimally Invasive Access Program – Laparoscopic Colon Course, Duke University Medical Center, Durham, NC, November 10-11, 2005.
34. Session Moderator: Update on Surgical Options for Rectal Cancer. 2nd Annual Laparoscopic Colorectal Surgery Course and 26th Annual Turnbull Symposium, The Cleveland Clinic, Cleveland, OH, September 29-October 1, 2005.
35. Laparoscopic Colectomy. Minimally Invasive Access Program – Laparoscopic Colon Course, Duke University Medical Center, Durham, NC, September 8, 2005.
36. Laparoscopic Colectomy. Minimally Invasive Access Program - Laparoscopic Colon Course, Duke University Medical Center, Durham, NC, June 17, 2005.

37. Moderator for Telesurgery for Liver OR Case. American College of Surgeons Clinical Congress, New Orleans, LA, October 9-14, 2004.
38. Laparoscopic Right Colectomy. Laparoscopic Colectomy: Medial to Lateral Approach. Laparoscopic Colon Surgery Course, US Surgical, Norwalk, CT, June 23 and 24, 2004.
39. Laparoscopic Colon Resection. Advanced Laparoscopic Techniques Course, Duke/US Surgical Endosurgery Center, Duke University Medical Center, Durham, NC, April 24, 2001.
40. Surgical Management of Inherited Colorectal Cancer Syndromes. Symposium: Colon Cancer Genetics: Assessing Risks. Duke University Medical Center, Durham, NC, November 10, 1998.
41. Controversies and Advances in Laparoscopy; Laparoscopic Colectomies: Indications and Techniques. Duke/US Surgical Endosurgery Center, Duke University Medical Center, Durham, NC, June 19, 1998.
42. Laparoscopic Intestinal Surgery, Pelvic Anatomy for the Surgeon. Visiting Faculty, Course Instructor, The Cleveland Clinic Foundation, Department of Colorectal Surgery, Cleveland, OH, November 19 and 20, 1997.
43. SAGES Advanced Laparoscopic Colon Course. US Surgical Corporation, Teaching Faculty, Norwalk, CT, September 5 and 6, 1997.
44. Controversies and Advances in Laparoscopy; Laparoscopic Colectomies: Indications and Techniques. Duke/US Surgical Endosurgery Center, Duke University Medical Center, Durham, NC, April 26 and 27, 1996.
45. Colonic Volvulus. Duke University Medical Center, Department of Surgery Curriculum Conference, Durham, NC, August 1996.
46. Sphincter Saving Surgery for Rectal Cancer. Operating Room Nurses In-service, Duke University Medical Center, Durham, NC, October 16, 1996.
47. Clinical Instructor. Rupert B. Turnbull School of Enterostomal Therapy, The Cleveland Clinic Foundation, July 1995-June 1996.
48. Controversies and Advances in Laparoscopy; Laparoscopic Colectomies: Indications and Techniques. Duke/US Surgical Endosurgery Center, Duke University Medical Center, Durham, NC, November 13 and 14, 1996.

VIDEO PRESENTATIONS:

1. **Ludwig KA.** How to Improve the Quality and the Results of the Laparoscopic Colorectal Anastomosis. The Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) 2013 Annual Meeting. Baltimore, MD, April 17-20, 2013.
2. **Ludwig KA, Mahmoud M.** Hand-Assisted Laparoscopic Sigmoid Colon Resection: A Simple and Reliable Technique. The Wisconsin Chapter of the American College of Surgeons Annual Conference. Kohler, WI, November 9, 2013.
3. **Ludwig KA, Milsom JW, Fazio VW.** Laparoscopic Oncologic Proctosigmoidectomy.

The American College of Surgeons 91st Annual Clinical Congress, San Francisco, CA, October 19, 2005.

4. **Ludwig KA**, Monson RJ, Lee WY. Laparoscopic Three Port Ileocecal Resection for Crohn's Disease. The American College of Surgeons 2004 Clinical Congress, New Orleans, LA, October 14, 2004.
5. **Ludwig KA**, Wilkiemeyer MB, Lee WY, Manson RJ. Laparoscopic Sigmoid Colectomy for Malignant Polyp. The American College of Surgeons 2004 Clinical Congress, New Orleans, LA, October 14, 2004.
6. Chekan E, **Ludwig KA**. A Cadaver Model for Laparoscopic Right Hemicolectomy. The Society of Laparoendoscopic Surgeons Seventh International Meeting, San Diego, CA, December 10, 1998.
7. **Ludwig KA**, Milsom, JW, Fazio VW. Principles of Laparoscopic Oncologic Proctosigmoidectomy. The American College of Surgeons 1995 Clinical Congress, New Orleans, LA, October 26, 1995.
8. **Ludwig, KA**. Principles of Laparoscopic Oncologic Proctosigmoidectomy. Motion Picture Session Presentation, The American College of Surgeons 1995 Clinical Congress, New Orleans, LA, October 1995.
9. **Ludwig, KA**. Completely Intracorporeal Laparoscopic Total Abdominal Colectomy with Ileorectal Anastomosis for Familial Adenomatous Polyposis. Third International Congress on New Technology and Advanced Techniques in Surgery, Luxembourg, June 1995.
10. Milsom JW, **Ludwig, KA**, Garcia-Ruiz A, Marchesa, PE. An Animal Training Model for Laparoscopic Colectomy. The Society of Surgical Oncology, Boston, MA, March 23, 1995
11. **Ludwig, KA**, Milsom JW, Fazio VW. Laparoscopic Oncologic Proctosigmoidectomy. 48th Annual Cancer Symposium - The Society of Surgical Oncology, Boston, MA, March 1995.
12. Milsom, JW, **Ludwig KA**, Church, J.M. Completely Intracorporeal Laparoscopic Total Abdominal Colectomy with Ileorectal Anastomosis for Familial Adenomatous Polyposis. Annual Scientific Session of the Society of American Gastrointestinal Endoscopic Surgeons. Lake Buena Vista (Orlando,) FL, March 13, 1995.