

CURRICULUM VITAE

Adam Jan Smolka, PhD

Office Address

Division of Gastroenterology, CSB 921E
Department of Medicine
Medical University of South Carolina
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Education

1965-1969	B.Sc. (Biochemistry)	University of St. Andrews, Scotland
1979-1982	Ph.D. (Physiology/Biophysics)	University of Alabama, Birmingham
1983-1985	Postdoctoral Fellow	University of California, Los Angeles

Faculty Appointments

1985-1987	Assistant Professor (in Residence)	Medicine	University of California, Los Angeles
1987-1991	Assistant Professor	Anatomy/ Cell Biology	Medical University of South Carolina (MUSC)
1991-1992	Associate Professor	Anatomy/ Cell Biology	MUSC
1992-2000	Associate Professor (tenured)	Medicine	MUSC
1993-2000	Associate Professor (Joint Appointment)	Cell Biology/ Anatomy	MUSC
2001	Professor	Medicine	MUSC
1988-curr.	Graduate Faculty	College of Graduate Studies	MUSC

Other Academic Appointments

1969-1972	Research Assistant	Veterinary Surgery	University of Edinburgh, Scotland
1973-1976	Research Associate	College of Engineering	University of Arizona
1977-1979	Visiting Scientist	Space Sciences Division	Marshall Space Flight Center, Alabama
1979-1982	Research Assistant	Physiology	University of Alabama, Birmingham

Administrative Appointments

1984-1987	Director	Hybridoma Facility	Center for Ulcer Research and Education (CURE), UCLA
1983-1987	Investigator		CURE, UCLA
1987-curr.	Affiliated Investigator		CURE, UCLA

Awards, Honors

Universities Space Research Association Scholar
Member, Hollings Cancer Center, MUSC
Member, NASA Biotechnology Fundamentals Study Section

Membership in Professional/Scientific Societies

American Physiological Society
American Gastroenterological Association
American Association for the Advancement of Science
Parietal Cell Club (President, 1993)

Editorial Positions Ad hoc reviewer for:

Journal of Biological Chemistry, American Journal of Physiology, Gastroenterology, Journal of Clinical Investigation, Biochimica Biophysica Acta, Journal of Histochemistry and Cytochemistry, Proceedings of the Society for Experimental Biology and Medicine, Trends in Cell Biology, Journal of Anatomy, American Journal of Medical Sciences

Extramural Grants as P.I.

1978-1981	Electrophoretic Cell Separation by Means of Microspheres	NASA JPL 95534
1983-1985	Application of Spherical Particles to Immunoassay	NASA JPL 740590
1984-1986	Structure and Localization of H,K-ATPase using Monoclonal Antibodies	NIH P01 AM 17328 (Project E1)
1984-1988	Gastric Acid Secretion: Synthesis of the Proton Pump	NIH R23 AM 34092
1990-1995	Epithelial H ⁺ Transport: Structure of H,K-ATPase	NIH R01 DK 43138
1990-1992	H ⁺ Transport in Epithelia: Conformation of H,K-ATPase	American Heart Assoc. S.C.
1996-2001	Epithelial H ⁺ Transport: Structure of H,K-ATPase	NIH R01 DK 43138
1997-2001	Gastric Mucosal Cell Culture in Simulated Microgravity	NASA NAG8-1385
2000-2001	Effect of Cyclo-Oxygenase Inhibitors on Gastric Proton Pump and IL-8 Secretion	Forest Laboratories, Inc.
2002-2003	Effect of Cyclo-Oxygenase Inhibitors on Gastric Proton Pump and IL-8 Secretion	Forest Laboratories, Inc.
2003-2005	Prognosis in Gastric Cancer: Cell and Molecular Signatures of Metastasis	DOD Phase VI (HCC)
2003-2005	Surrogate Biomarkers of Micrometastatic Gastric Cancer	NIH/NCI R03 CA101123
2005-2007	MALDI-TOF Prognostics in	DOD Phase VII (HCC)

2005-2010	Esophageal Cancer Mechanisms of <i>H. pylori</i> -Induced Hypochlorhydria	NIH R01 DK 064371
2007-2008	Diagnosis of Esophageal Carcinomas by Plasma Mass Spectrometry	AstraZeneca IRUSESOM0517

Extramural Grants as Co-I.

1994-1999	Inner Ear Ion Transport Mechanisms	NIH R01 DC 00713-06 (Dr. Schulte, P.I., MUSC)
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Intramural Grants as P.I.

1988	Hybridoma Probes of Gastric Secretion	University Research Council, MUSC
1991	An Assessment of Antibody Expression Library Technology	University Research Council, MUSC
1995	Epithelial H ⁺ Transport: Structure of H,K-ATPase	University Research Council, MUSC
2001	<i>H. pylori</i> and Gastric H,K-ATPase Gene Expression	University Research Council, MUSC

Patent Awards

2004	Annulated Pyrrole Compounds as Proton Pump Inhibitors for Treating Ulcer (International Application No. PCT/EP03/05171)
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Academic Committee Activities

University

1987-curr.	University Research Council Review Subcommittees (10)
2002, 2003	Teaching Excellence Award Committee
2002	Dean's Task Force on Multi-Media Database Instruction
2005	Comprehensive Standards Regarding Programs Committee (SACS Accreditation); College of Graduate Studies Member
2007	Provost's Basic Science Teaching Task Force

College

1988-1989	Graduate Training Committee, Molecular and Cellular Biology and Pathobiology (MCBP) Training Program
1988-1989	Academic Computing Planning Committee
1994-curr.	Executive Committee, MCBP Program
1994-2000	Cell Biology Track Committee, MCBP Program (Chair)
1995-1996	Advisory Committee, Protein Chemistry Core Facility
1997-1999	Advisory Committee, Electron Microscopy Shared Facility
1998-curr.	Student Progress Committee, MCBP Program
1999-2001	Advisory Committee, Mass Spectrometry Facility
2000-curr	Curriculum Committee, College of Graduate Studies
2004-curr.	First Year Curriculum Steering Committee, College of Graduate Studies (Chair)

2004-curr. Graduate Council (*ex officio*), College of Graduate Studies
2009 Howard Hughes Medical Investigator Med-into-Grad Program Internal Advisory Committee (Core Leadership Team)

Department

1987-1988 Structural Biology Center Seminar Committee
1988-1989 Seminar Committee, Anatomy and Cell Biology
1988-1990 Graduate Student Committee, Anatomy and Cell Biology (Chair)
1988-1992 Graduate Training Committee, Anatomy and Cell Biology

Graduate Student Advisory Committees

1991-93 Antony Ambesi, Ph.D. Candidate, Department of Pharmacology, MUSC
1993-95 Laura Gately, M.S. Candidate, Department of Medicine, MUSC
1995-97 Brian Bond, Ph.D. Candidate, Department of Pathology, MUSC
1999-2000 Lisbeth Stewart, Ph.D. Candidate, Monash Research Graduate School
2001-2004 Kristin Highland, M.S. Candidate, Department of Medicine, MUSC
2002-2003 Mark Kaldas, M.S. Candidate, Department of Pharmacology
2005- Arindam Saha, Ph.D. Candidate, Department of Medicine (Chair)
2005- Neil Demarse, Ph.D. Candidate, Department of Biochemistry

Other

1983 Center Grant Committee, Center for Ulcer Research and Education, UCLA
1984-1885 Education and Career Development Committee, CURE, UCLA
1987, 1988, 1993,
2002, 2006 American Gastroenterological Association Abstracts Selection Committee
1991-1994 Parietal Cell Club National Steering Committee

Major Teaching Responsibilities

Undergraduate Medical Education

Human Anatomy (004-411) Fall 1993, 1994, >110 pharmacy students
Cell, Tissue and Organ Biology (004-615) Spring 1989-1996, >120 medical students
Pharmacology (051-601) Spring 1993-95, >120 medical students
Parallel Curriculum (Tutor) Fall 1996-99, 6 medical students
Parallel Curriculum (Evaluator) 7 semesters, 1996-1999, 15 medical students
Summer Undergraduate Research Program, 2003-2007, 70 biosciences undergraduates

Graduate Medical Education

Gastroenterology and Hepatology Division Basic Science Group (Program Co-ordinator, 1995-2000) 5-15 GI faculty, fellows, house-staff, students
Gastroenterology and Hepatology Division Research Grand Rounds (Program Co-ordinator 1995-2002.) 20-30 GI faculty, fellows

Graduate Studies Education

Biomedical Sciences First Year Curriculum (Course Director, 2000-curr.) 45 graduate students
Advanced Cell Biology 004-723 (Course Director, 1991-2001) 14-27 graduate students
Membrane Biochemistry 012-725 (Co-Course Director) Spring 1990, 7 graduate students
Membrane Biochemistry Research 011-891S (Course Director) Summer 1990-1993, 1-2
graduate, medical students
Molecular Biology (STOMA 876-College of Dental Medicine), Fall 2002, 6 students

Major Research and Clinical Interests

Mechanisms of gastric acid secretion, *Helicobacter pylori* pathophysiology, proteomic biomarkers of esophageal cancer.

Invited Lectures

02.28.84 INSERM - Unite de Recherches de Gastro-enterologie, Paris, France.
03.09.84 AB Hässle-Astra, Molndal, Sweden.
07.22.86 International Union of Physiological Sciences, Gastrointestinal Secretion
Symposium, Calgary, Alberta, Canada.
08.05.87 Xth ISN Congress, Satellite Meeting on Structure, Function and Regulation of
Membrane Transport Proteins, Furigen, Switzerland.
06.24.88 NASA Ames Research Center, Moffett Field, California.
02.06.89 Annual Marion Lecture, Center for Ulcer Research and Education, UCLA
04.27.90 University of Florida, Department of Medicine. Gainesville, Florida
03.08.90 Institute of Pharmacological Sciences, Syntex USA, Inc. Palo Alto, California.
07.19.90 International Symposium on Defense Mechanisms of the Digestive System,
Prague, Czechoslovakia.
07.12.91 Oregon Health Sciences University, Department of Physiology. Portland, Oregon.
01.16.92 University of Southern California, Department of Pharmaceutical Sciences, Los
Angeles
04.23.92 Syracuse University, Department of Biology, Syracuse, New York
10.01.92 Florida Salt and Water Club, Longboat Key, Sarasota, Florida
01.25.93 University of Alabama, Nephrology Research and Training Center,
Birmingham, Alabama
07.28.93 Symposium "Molecular and Cellular Mechanisms of H⁺ Transport", York,
England
12.05.94 Gastroenterology Division Research Seminar, Department of Medicine, MUSC
12.07.94 Department of Cell Biology Seminar, MUSC
05.26.95 Medical Scientist Training Program, MUSC
03.21.96 Molecular and Cellular Pathobiology External Seminar Series, MUSC
06.03.97 Institute for Molecular Medicine and Genetics, Medical College of Georgia
05.08.98 Center for Structural and Molecular Biology, Hollings Cancer Center, MUSC
04.07.00 Department of Pathology, MUSC
05.05.00 Department of Cell Biology and Anatomy, MUSC
05.25.00 Symposium "GI Forum 2000", Coronado, California
08.21.01 IX International Proton Transport Conference, Sydney, Australia
10.29.01 Medical Scientist Training Program, MUSC
06.30.03 Summer Undergraduate Research Program, MUSC
06.23.04 Gastroenterology Research Grand Rounds, MUSC
07.06.04 Summer Undergraduate Research Program, MUSC
07.05.05 Summer Undergraduate Research Program, MUSC
07.10.06 Summer Undergraduate Research Program, MUSC

07.02.07 Summer Undergraduate Research Program, MUSC

Extramural Professional Activities

1985 Chairman, Center for Ulcer Research and Education Research Symposium
1987, 1988 American Gastroenterological Association Abstracts Selection Committee
1994 (Mechanisms of Acid Secretion)
1989 Session Chairman, American Gastroenterological Association Annual Meeting, Washington, DC
1990 Session Chairman, International Symposium on Defense Mechanisms of the Digestive System, Prague, Czechoslovakia
1991-1994 Parietal Cell Club National Steering Committee
1994 Session Chairman, American Gastroenterological Association Annual Meeting, New Orleans, LA (Mechanisms of Gastric Secretion)
1994 Ad Hoc Reviewer, VA Merit Review Board for Gastroenterology
1994, 1997 Ad Hoc Reviewer, USDA National Research Initiative Competitive Grants Program
1998 Member, NASA Biotechnology Fundamentals Study Section, Washington, D.C.

Other Service

Core Facility Established and directed the Hybridoma Facility at the Center for Ulcer Research and Education at UCLA School of Medicine. Facility provided investigators world-wide with unique monoclonal antibody markers of gastric parietal cells.

CURE Research Symposium, 1985 Organised and chaired annual research symposium at the Center for Ulcer Research and Education, UCLA School of Medicine.

Industry Ad hoc collaboration and consultation with Smith, Kline & French Laboratories, AB Hässle-Astra, Syntex USA, Upjohn Inc., Forest Laboratories, Inc., and Procter and Gamble on topics related to development of anti-secretory drugs. In 1995, implemented licensing agreements with Calbiochem Inc. (now EMD BioSciences, Inc) and Signal Transduction Inc. for distribution of antibodies to wider scientific community.

Public Schools Coordinated laboratory research experience for students of the South Carolina Governor's School Program, 1991, 1994, and 1997-1999. Member of Advisory Committee on Science Text-Books for the Charleston County School Board. Member of Advisory Committee at Academic Magnet High School for establishing criteria for selection of science teachers

MUSC Student Research Day Judges Committee (Chairman, Ph.D. Oral Presentations), 1992-present

Media TV (Charleston ABC affiliate) and radio (South Carolina ETV) interviews on research or current topics in gastroenterology

Science Public Awareness Scuba Diver, Animal Husbandry Volunteer, South Carolina Aquarium; SC Department of Natural Resources and REEF Project Volunteer Diver

Bibliography

Full Papers

1. Smolka AJK, Logan EF (1972) Recovery of immunoglobulin G from Cohn Fraction II+III by forced-flow electrophoresis. **Prep Biochem** 2:329-345
2. Bier M, Smolka AJK, Kopwillem A (1976) Preparative electrophoresis in zero gravity. **J Colloid Interface Sci** 55:197-207.
3. Kopwillem A, Merriman WG, Cuddeback RM, Smolka AJK, Bier M (1976) Serum protein

- fractionation by isotachopheresis using amino acid spacers. **J Chromatog** 118:35-46.
4. Smolka AJK, McGuire JK (1978) Continuous flow electrophoresis: membrane-associated deviations of buffer pH and conductivity. **NASA Tech Memo** 78210. National Technical Information Service.
 5. Rembaum A, Smolka AJK, Yen SPS (1978) Synthesis and electrokinetic properties of poly(4-vinylpyridine) microspheres. **Polym Prepr** 19:215-219.
 6. Smolka AJK, Margel S, Nerren BH, Rembaum A (1979) Electrophoretic cell separation by means of microspheres. **Biochim Biophys Acta** 588:246-255.
 7. Smolka AJK, Miller TY (1980) Isoelectric focusing of red blood cells in a density gradient. **NASA Tech Memo** 78268. National Technical Information Service.
 8. Smolka AJK (1980) Improved sample management in the cylindrical tube micro-electrophoresis method. **NASA Tech Memo** 78269. National Technical Information Service.
 9. Faller LD, Malinowska DH, Rabon E, Smolka A, Sachs G (1981) Mechanistic studies of the gastric H,K-ATPase. **Prog Clin Biol Res** 73:153-174.
 10. Kempner DH, Smolka AJK, Rembaum A (1982) Electrophoretic cell separation using polyacrolein microspheres. **Electrophoresis** 3:109-113.
 11. Faller LD, Malinowska DH, Mukidjam E, Rabon E, Saccomani G, Sachs G, Smolka A (1982) Mechanistic aspects of gastric H,K-ATPase. **Ann NY Acad Sci** 402:146-163.
 12. Smolka A, Kempner D, Rembaum A (1982) Electrophoretic separation of human lymphocytes by means of immunomicrospheres. **Electrophoresis** 3:300-305.
 13. Rabon E, Cuppoletti J, Malinowska DH, Smolka A, Helander HF, Mendlein J, Sachs G (1983) Proton secretion by the gastric parietal cell. **J Exptl Biol** 106:119-133.
 14. Smolka A, Helander HF, Sachs G (1983) Monoclonal antibodies against the gastric H,K-ATPase. **Am J Physiol** 245:G589-G596.
 15. Pearce B, Smolka A, Sachs G (1984) Isolation of pepsinogen granules from rabbit gastric mucosa. **J Biol Chem** 259:9255-9262.
 16. Smolka A, Weinstein WM (1986) Immunoassay of pig and human gastric proton pump. **Gastroenterology** 90:532-539.
 17. Fain GL, Smolka A, Ciluffo MC, Fain MJ, Lee DA, Brecha NC, Sachs G (1988) Monoclonal antibodies to the H,K-ATPase of the gastric mucosa selectively stain the non-pigmented cells of the rabbit ciliary body. **Invest Ophthalmol Vis Sci** 29:785-794
 18. Chew CS, Ljungstrom M, Smolka A, Brown MR (1989) Primary culture of secretagogue-responsive parietal cells from rabbit gastric mucosa. **Am J Physiol** 256:G254-G263.
 19. Hanzel DK, Urushidani T, Usinger WR, Smolka A, Forte JG (1989) Localization of an 80 kDa phosphoprotein to the apical membrane of gastric parietal cells. **Am J Physiol**, 256:G1082-G1089.
 20. Smolka A, Sachs G, Lorentzon P (1989) Cell-free synthesis of rat and rabbit gastric proton pump. **Gastroenterology**, 97:873-881
 21. Thomas HA, Machen TE, Smolka A, Baron R, Kopito RR (1989) Identification of a 185 kDa band 3-related polypeptide in oxyntic cells. **Am J Physiol**, 257:C537-C544
 22. Helander HF, Anderson D, Helander KG, Smolka A, Sachs G (1989) Immunocytochemical studies on gastric H,K-ATPase in the developing rat. **Scand J Gastroenterol** 24:863-869
 23. Smolka A, and Donaldson RM (1990) Monoclonal antibodies against human intrinsic factor. **Gastroenterology**, 98:607-614
 24. Okamoto CT, Karpilow JM, Smolka A, Forte JG (1990) Isolation and characterization of gastric microsomal glycoproteins. Evidence for a glycosylated β -subunit of the HK-ATPase. **Biochem.Biophys.Acta**, 1037:360-372
 25. Wingo CS, Madsen KM, Smolka A, Tisher CC. (1990) H,K-ATPase immunoreactivity in cortical and outer medullary collecting duct. **Kidney International**, 38:985-990
 26. Smolka A, Alverson L, Fritz R, Swiger K, Swiger F (1991) Gastric H,K-ATPase topography; Amino acids 888-907 are cytoplasmic. **Biochem Biophys Res Commun**, 180:1356-1364

27. Smolka A Swiger K (1992) Site-directed antibodies as topographical probes of the gastric H,K-ATPase α subunit. **Biochim Biophys Acta**, 1108:75-85
28. Burman P, Kämpe O, Kraaz W, Lööf L, Karlsson A, Karlsson-Parra A, Smolka A. (1992) A study of autoimmune gastritis in the post-partum period and at a 5-year follow-up. **Gastroenterology** 103:9934-942
29. Soroka CJ, Chew CS, Hanzel DK, Smolka A, Modlin IM, Goldenring JR (1993) Characterization of membrane and cytoskeletal compartments in cultured parietal cells: immunofluorescence and confocal microscopic examination. **Eur J Cell Biology**, 60:76-87
30. Smolka AJ, Lacy ER, Luciano L, Reale E (1994) H,K-ATPase distribution in the gastric mucosa of the Atlantic stingray, *Dasyatis sabina*. **J Histochem Cytochem**, 42:1323-1332
31. Swenson ER, Fine AD, Maren TH, Reale E, Lacy ER, Smolka AJ (1994) Evidence for H,K-ATPase mediated renal acid secretion in the marine elasmobranch, *Squalus acanthias*. **Am J Physiol**, 267 (Renal Fluid Electrolyte Physiol 36):F639-F654
32. Callaghan J, Tan SS, Khan MA, Curran KA, Campbell WG, Smolka AJ, Toh BH, Gleeson PA, Wingo CS, Cain BD, Van Driel I (1994) Renal expression of the gene encoding the gastric H,K-ATPase β subunit. **Am J Physiol** 268 (Renal Fluid Electrolyte Physiol 37): F363-F374
33. Wingo CS, Smolka A (1995) Function and structure of H,K-ATPase in the kidney. **Am J Physiol** 269 (Renal Fluid Electrolyte Physiol 38): F1-F16
34. Tyagarajan J, Chow DC, Smolka A, Forte JG (1995) Structural interactions between α and β -subunits of the gastric H,K-ATPase. **Biochim Biophys Acta** 1236:105-113
35. Walker JM, Smolka A, Waller A, Evans DJ (1995) Identification of parietal cells in human gastric mucosa with HMFG-2 monoclonal antibody. **J Clin Path** 48:832-834
36. Harris AW, Walker MM, Smolka A, Waller JM, Baron JH, Misiewicz JJ (1996) Prevalence of parietal cells in the duodenal bulb and their relationship to *Helicobacter pylori* infection. **J Clin Path** 49:309-312
37. Lacy ER, Cowart KS, King JS, DelValle J, Smolka AJ (1996) Epithelial response of the rat gastric mucosa to chronic superficial injury. **Yale J Biol Med** 69:105-118
38. Kraut JA, Hiura J, Besancon M, Smolka A, Sachs G, Scott D (1997) The effect of hypokalemia on the abundance of HK α 1 and HK α 2 protein in the rat kidney. **Am J Physiol** 272 (Renal Physiol 41): F744-F750
39. Lacy ER, Smolka AJ (1997) The balance among gastrin cells, proliferative cells, and parietal cells is altered in the aged rat stomach. **Medical Tribune** 47:5-10
40. Kraut JA, Hiura J, Shin JM, Smolka A, Sachs G, Scott D (1998) The Na,K-ATPase beta 1 subunit is associated with the HK alpha 2 protein in the rat kidney. **Kidney Int** 53(4):958-962
42. Smolka AJ, Larsen KA, Hammond CE (1999) H,K-ATPase α subunit C-terminal membrane topology: Epitope tags in the insect cell expression system. **Biochem J** 340:601-611
41. Gooz M, Hammond CE, Larsen K, Smolka AJ (2000) Inhibition of human gastric H,K-ATPase gene expression by *Helicobacter pylori*. **Am J Physiol** Gastrointest. Liver Physiol 278:G981-G991
42. Smolka AJ, Larsen KA, Hammond CE (2000) Location of a cytoplasmic epitope for monoclonal antibody HK 12.18 on H,K-ATPase α subunit. **Biochem Biophys Res Commun** 273:942-947
43. Gooz M, Gooz P, Smolka AJ (2001) Epithelial and bacterial metalloproteinases and their inhibitors in *H. pylori* infection of human gastric cells. **Am J Physiol** Gastrointest. Liver Physiol 281:G823-G832
44. Gooz M, Shaker M, Gooz P, Smolka AJ (2003) IL-1 β induces gastric epithelial cell matrix metalloproteinase secretion and activation during *Helicobacter pylori* infection. **Gut** 52(9):1250-1256
45. Yang GY, Liao J, Cassai ND, Smolka AJ, Sidhu GS (2003) Parietal cell carcinoma of gastric cardia: immunophenotype and ultrastructure. **Ultrastruct Pathol** 27(2):87-94.
46. Gooz M, Toth M, Vakkuri O, Gooz P, Smolka AJ, de Chatel R, Szalay KS (2004) Endogenous

- ouabain-like factor (OLF) secretion is modulated by nicotinic mechanisms in rat adrenocortical cells. **Life Sci** 74 (17): 2111-2128.
47. Smolka AJ, Goldenring JR, Gupta S, Hammond CE (2004) Inhibition of gastric H,K-ATPase activity and gastric epithelial cell IL-8 secretion by the pyrrolizine derivative ML 3000. **BMC Gastroenterology** 4:4-19.
 48. Karpievitch Y, Hill EG, Smolka AJ, Morris JS, Coombes KR, Baggerly KA, Almeida JS (2006) PrepMS: PrepMS: TOF MS data graphical preprocessing tool. **Bioinformatics** 23(2):264-265.
 49. Saha A, Hammond CE, Gooz M, Smolka AJ (2007) Interleukin-1 β modulation of H,K-ATPase α subunit gene transcription in *Helicobacter pylori* infection. **Am J Physiol Gastrointest. Liver Physiol** 292(4):G1055-61
 50. Lapierre LA, Avant K, Caldwell CM, Ham AJ, Hill S, Williams JA, Smolka A, Goldenring JR (2007) Characterization of immunoisolated from human gastric parietal cells tubulovesicles: identification of regulators of apical recycling. **Am J Physiol Gastrointest Liver Physiol** 292(5):G1249-62.
 51. Saha A, Hammond CE, Trojanowska M, Smolka AJ (2008) *Helicobacter pylori*-induced H,K-ATPase α subunit gene repression is mediated by NF- κ B p50 homodimer promoter binding. **Am J Physiol Gastrointest Liver Physiol**, 294(3):G795-807.
 52. Saha A, Hammond CE, Gooz M, Smolka AJ (2008) The role of Sp1 in IL-1 β and *H. pylori*-mediated regulation of H,K-ATPase gene transcription **Am J Physiol Gastrointest Liver Physiol**, 295(5): G977-86.
 53. Saha A, Hammond CE, Beeson C, Peek RM, Smolka AJ (2009) *Helicobacter pylori* represses proton pump expression and inhibits acid secretion in human gastric mucosa. (*Gastroenterology*, under review)
 54. Saha A, Smolka AJ, Backert S, Hammond CE, Gooz M (2009) Role of CagL in *Helicobacter pylori*-induced Human H,K-ATPase α subunit gene repression. (*Gastroenterology*, under review)
 55. Schwacke J, Hill EG, Hammond CE, Hoffman BJ, Smolka AJ (2009) Discrimination of normal and esophageal cancer plasma proteomes by MALDI-TOF mass spectrometry. **Clin Cancer Res** (submitted)

Book Chapters

1. Bier M, Hinckley JON, Smolka AJK (1974) Potential use of isotachopheresis in space. In "Protides of the Biological Fluids" (H Peeters, ed) Elsevier, Amsterdam. pp 673-678.
2. Bier M, Hinckley JON, Smolka AJK, Binder MJ, Coxon M, Nee TW, Scully MO, Shih HST (1974) Role of gravity in preparative electrophoresis. In "Skylab Results" Vol. II. NASA M-74-5, National Technical Information Service, pp 729-753
3. Sachs G, Rabon E, Stewart HB, Peerce B, Smolka A, Saccomani G (1980) Gastric glands and vesicles: II. Vesicles. In "Hydrogen Ion Transport in Epithelia (I Schultz, ed) Elsevier/North Holland Biomedical Press, pp 135- 143
4. Rembaum A, Smolka A (1980) Electrophoretic cell separation by means of immuno-microspheres. In: "Bioelectrochemistry" (H Keyser and F Gutman, eds) Plenum Publishing Corporation, pp 267-272
5. Smolka AJK (1982) A study of the proton translocating adenosine triphosphatase of the gastric mucosa using monoclonal antibodies. [Dissertation]. Birmingham, Alabama: University of Alabama.
6. Sachs G, Berglindh T, Faller LD, Rabon E, Malinowska D, Cuppoletti J, Gunther R, Smolka A (1984) The gastric H,K-ATPase. In: "Hydrogen Ion Transport in Epithelia" (JG Forte, DG Warnock, and FC Rector, eds) John Wiley and Sons, New York. pp 57-72.
7. Faller LD, Smolka A, Sachs G (1984) The gastric H,K-ATPase. In: "Enzymes of Biological Membranes, Vol. II" (AN Martinosi, ed) Plenum Publishing Corporation, pp 431-438.

8. Colvin M, Smolka A, Rembaum A, Chang M (1987) The covalent binding of enzymes and immunoglobulins to hydrophilic microspheres. In: "Microspheres: Medical and Biological Applications" (ZA Tokes, ed) CRC Press, Boca Raton, Florida.
9. Smolka A, Lorentzon P (1988) In vitro synthesis of gastric mucosal proteins. In: "Gastrointestinal and Hepatic Secretions" (JL Boyer and EA Shaffer, eds). University of Calgary Press, pp 140-143.
10. Smolka A (1989) Immunological probes of gastrointestinal secretion. In: "Handbook of Physiology. Gastrointestinal System. Salivary, Gastric, Pancreatic, and Hepatobiliary Secretion". Bethesda, MD: Am Physiol Soc, sect. 6, vol III, chapt. 17, p 327-344
11. Smolka A (1993) Synthetic peptide antibody probes of membrane orientation of the gastric H,K-ATPase. In: "Molecular and Cellular Mechanisms of H⁺ Transport". Hirst BH, ed. Berlin: Springer-Verlag, pp 55-62
12. Wingo CS, Zhou X, Smolka A, Madsen K, Tisher CC, Curran KA, Campbell WG, Cain BD (1993) The renal H,K-ATPase: Function and Expression. In: "Molecular and Cellular Mechanisms of H⁺ Transport". Hirst BH, ed. Berlin: Springer-Verlag, pp 79-84
13. Smolka AJ, Dubois A, Gooz M (2000) *Helicobacter pylori* regulates transcription of the gastric proton pump α subunit gene. In: "Further Advances in Gastrointestinal Ulcer Disease". Terano A, Szabo S, eds. Tokyo: Biomedis International Ltd. pp 45-50.
14. Smolka A, Gooz M (2002) Host-specific *H. pylori* inhibition of H,K-ATPase α subunit gene expression. In: "Mechanisms and Consequences of Proton Transport". Urushidani T, Forte JG, Sachs G, eds. Kluwer Academic Publishers, Boston, pp 91-99.
15. Gooz M, Shaker M, Gooz P, Smolka A, (2002) Role of cytokines in *Helicobacter pylori*-induced gastric epithelial cell matrix metalloproteinase secretion and activation. In: "Mechanisms and Consequences of Proton Transport". Urushidani T, Forte JG, Sachs G, eds. Kluwer Academic Publishers, Boston, pp 123-126.

Abstracts

1. Smolka AJK, Bier M (1975) Isotachopheresis of living cells. **Fed Proc** 34:873.
2. Rembaum A, Smolka AJK, and Yen SPS (1978) Synthesis and electrokinetic studies of poly (4-vinylpyridine) microspheres. **American Chemical Society Abstracts**, 176:43.
3. Smolka A, Helander HF, Sachs G (1982) Monoclonal antibodies to parietal cell membranes. **Fed Proc** 41:982.
4. Smolka A (1983) Monoclonal antibody immunoassay of the gastric H,K-ATPase. **The Physiologist** 26:A111.
5. Helander HF, Smolka A, Ramsay CH, Sachs G, Fellenius E (1983) Localization of gastric K,H-ATPase. **Hepatogastroenterol** 30:72.
6. Smolka A, Sachs G, Lorentzon P (1986) Isolation and translation of rabbit gastric messenger RNAs. **Fed Proc** 45: 1042.
7. Smolka A, Zettel D, Lorentzon P, Donaldson R (1986) Monoclonal antibodies against intrinsic factor. **Gastroenterology** 90:1640.
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